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Final Report of The Federal Advisor on Wait Times

June 2006



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Final Report of The Federal Advisor on Wait Times

June 2006



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Brian D. Postl, MD
Federal Advisor on Wait Times

June, 2006

**To: The Right Honourable Stephen Harper
The Honourable Tony Clement**

In July 2005 I was invited to assume the role of Federal Advisor on Wait Times. I was asked to inquire into the factors contributing to long wait times and to discuss with provinces, territories and stakeholders efforts that could contribute to more timely access to health care services. The federal government at that time sought recommendations and advice, respectful of jurisdictions and powers in Canada, which would ensure the reduction of wait times for health care services.

Specifically my mandate was to:

- advance further action to achieve meaningful reductions in wait times;
- identify and continue to develop consensus on establishing comparative indicators and evidence-based benchmarks;
- assess knowledge gaps and find ways to address them; and
- encourage the adoption of methods and tools to better manage wait times.

I am happy to report to you that I have enjoyed the cooperation of many jurisdictions, institutions and individuals who share in the objective of making timely access to health care a hallmark of Canada's health care systems.

In December of 2005 Federal, Provincial and Territorial Ministers of Health achieved the first major commitment of the *2004 "10-Year Plan to Strengthen Health Care"*. Ten evidence-based benchmarks for timely care in five areas defined by the First Ministers were announced in Toronto, Ontario. These ten benchmarks established a high standard with respect to clinical evidence and for collaboration amongst federal, provincial and territorial jurisdictions. They have incited the health care system to action in these clinical areas and have established high expectations on the part of the public, professionals and your political colleagues for the health care system's achievement.

While the declaration of evidence-based benchmarks is an important milestone in the ongoing effort to reduce wait times, benchmarks alone will not solve the problem of timely access to the health care system. Many factors combine to create the long waits that Canadians sometimes experience. It is the analysis and remediation of these factors that will help to ensure that our achievements in establishing benchmarks show lasting benefits to Canadians. I believe that the consultations that I have undertaken have illuminated many areas to which we can now turn our attention, with the assurance that collective effort on a continuing basis can improve the health care system's efficiency, effectiveness and timeliness.

It is my pleasure to document these findings for your consideration and for that of the public, and our provincial, territorial and professional colleagues. It is my hope that my observations and

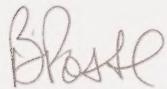
recommendations will permit federal, provincial and territorial governments to engage in additional forward-thinking collaborations and to achieve the kind of health care system that succeeds by making the patient and the patient's needs the focus for our decisions regarding system change. This report is written not only to create a public record of my findings but also to provide an inventory of tools, processes and initiatives that could be employed by individual provinces, territories and governments collaboratively to transform Canada's health care system.

Where my recommendations have funding implications estimates provided are notional and subject to further discussion and negotiation between federal, provincial and territorial governments.

Your government has committed itself to the creation of patient wait time guarantees and will undoubtedly discuss with provincial and territorial governments the means to achieve these. I believe that the recommendations put forward here are critical to building the kind of health care system that makes the fulfillment of patient wait times guarantees possible.

I have been honoured to have the responsibility of this mandate and I am pleased to submit for your consideration this Final Report.

Respectfully submitted,



Brian Postl, M.D.

Acknowledgements

During the nine months of my appointment as Federal Advisor on Wait Times I have enjoyed the cooperation of a wide array of organizations and individuals across Canada. To all of them I owe a debt of gratitude for their contributions to my understanding of the issues surrounding wait times and the analysis and recommendations that are found in this document.

In particular I would like to express my sincere gratitude to the members of my Advisory Committee and the federal, provincial and territorial Deputy Ministers of Health who freely and generously made time available. A complete listing of all contributors to this process can be found in Appendix G of this report.

I was ably assisted by staff seconded from The Winnipeg Regional Health Authority: Ms. Kim Morrison, Intergovernmental Advisor; Ms. Heidi Graham, Communications Advisor, and Ms. Jolene Chester, Executive Assistant.

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Charlotte Johnson, B.A. (Hons.), M.Sc.
Director
Canadian Wait Time Project

Vivian Sandberg
Senior Policy Analyst

Anne Janes, B.A. (Hons.), M.P.A.
Policy Analyst

Cathy Martens
Administrative Support

Tamara Pomanski, B.A., M.P.A.
Policy Analyst

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There are likely other contributors who I have failed to acknowledge, some of whom may have contributed to this final report through more senior officials. I have appreciated the careful attention and advice of many who are not recognized formally in this report.



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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Executive Summary	11
Benchmarks, indicators and ongoing research	12
Management and innovation	12
Information technology	13
Professional roles and responsibilities	14
Additional issues	15
Public education	16
Additional considerations	17
Conclusion	17

CHAPTER 1: INTRODUCTION

1.1 Background	21
1.2 Overview of Phase I	24
1.3 Overview of Phase II	25
1.4 Conclusion	26

CHAPTER 2: BENCHMARKS, INDICATORS AND ONGOING RESEARCH

2.1 <i>The 10-Year Plan to Strengthen Health Care</i>	29
2.2 Terminology	30
2.3 Using benchmarks to provide timely access	31
2.4 Using indicators	31
2.5 Using access targets	32
2.6 Ongoing research to support wait times	32
2.7 Conclusion	34

CHAPTER 3: MANAGEMENT AND INNOVATION IN HEALTH CARE SYSTEMS

3.1 Why are there waits for services?	38
3.2 A perspective on health care waits and delays	39
3.3 Best practices and efficiencies	40
3.4 Models for quality improvement	41
3.5 Modern methods of queue management	42
3.6 Provincial Wait Time Champions	45
3.7 Navigating the healthcare system	45
3.8 Training health care professionals	46
3.9 Conclusion	47

CHAPTER 4: INFORMATION TECHNOLOGY (IT)

4.1	Current state of the health info-structure in Canada	49
4.2	Health care professional scenario	50
4.3	Current issues in Information Technology.....	51
4.4	Technology tools.....	52
4.5	Canada Health Infoway.....	55
4.6	Conclusion	56

CHAPTER 5: PROFESSIONAL ROLES AND RESPONSIBILITIES

5.1	The unique role of physicians in health care systems	59
5.2	Physician institutions	61
5.3	Professional standards to support change	61
5.4	Educational efforts to perpetuate change	62
5.5	Issues of competency	62
5.6	Definition of roles	62
5.7	Conclusion	63

CHAPTER 6: ADDITIONAL ISSUES

6.1	Children's wait times	65
6.2	Surge capacity	66
6.3	Health human resources	70
6.4	Gender-based analysis.....	71
6.5	Cinderella diseases.....	72
6.6	Other provincial and territorial priorities	73
6.7	Conclusion	73

CHAPTER 7: PUBLIC EDUCATION

7.1	The need for a public education strategy	75
7.2	Who is “the public”?	75
7.3	How Canadians are informed about wait times and implications for a public education plan.....	76
7.4	Goals of the public education effort.....	76
7.5	Factors to consider	77
7.6	Public education on key transformations	78
7.7	A pan-Canadian plan.....	78
7.8	Conclusion	79

CHAPTER 8: WHAT THE FUTURE HOLDS

8.1	Patient Wait Times Guarantees.....	82
8.2	Conclusion	84
	BIBLIOGRAPHY	87
	News Releases	89

APPENDICES

- A. Health Canada News Release, July 21, 2005: Government of Canada appoints Advisor on Wait Times
- B. Health Canada backgrounder on wait times: July 2005
- C. Financial Implications
- D. Provincial/Territorial Wait Time Websites
- E. Federal, Provincial, Territorial Consultations
- F. Speeches and Presentations
- G. Advisors and Contributors

REPORTS

- 1. Canadian Health Services Research Foundation (CHSRF):- “Shorter Waits and Improved Flows Training Program” (SWIFT)
- 2. Canada Health Infoway: “Addressing Wait Times with Information Technology”
- 3. National Child and Youth Health Coalition (NCYHC): “National Paediatric Surgical Wait Times Strategy: Access Targets”
- 4. Pan Canadian Health Human Resource Strategy
- 5. Women and Health Care Reform Group: “Gender Based Analysis and Wait Times Report: New Questions, New Knowledge”

Executive Summary

Recently there has been increasing attention paid to elements of performance in Canada's health care systems from the perspectives of sustainability, efficiency and timeliness. Wait times for some surgical and medical procedures have increased and emergency rooms are seen to be experiencing heavy patient loads with long wait times. New technologies and new drugs bring with them higher expectations and higher costs.

Federal, provincial and territorial governments are engaged continuously in the challenging task of finding solutions to these problems. First Ministers' Meetings (FMM) have devoted particular attention to health system challenges that are intrinsic in the national objective to provide comprehensive care that is accessible to all Canadians.

The issue of wait times has been increasingly a high priority for Canadians and therefore prominent in media reports. Following the 2004 First Ministers' meeting, a \$5.5 billion fund was established to assist provincial and territorial efforts to reduce wait times. In December 2005, ten wait time benchmarks were established in five priority areas: cancer, cardiac, diagnostic imaging, joint replacement and sight restoration.

However important the issue of wait times might be, dealing with wait times in isolation from health care systems will have limited benefit. Wait times are a symptom of a larger problem. In order to create a more efficient and effective health care system, Canadians need to support a transformation that puts patients at the centre of the system. There are several elements that require attention in this transformation, all necessary but not individually sufficient to create change. I am recommending that this transformation be advanced by immediate action in the following areas:

- ongoing research to support benchmarking and operational improvements;
- adoption of modern management practices and innovations in health systems;
- accelerated implementation of information technology (IT) solutions;
- cultural change amongst health professions;
- development of regional surge capacity; and
- public education to support system transformation.

It is my view that by addressing these key areas, patients will be better served, wait times will be reduced and health care systems will become increasingly responsive to the needs of the patient.

Each of these areas is addressed in this final report. I have attempted to provide sufficient background and/or explanation for each of these elements of transformation. It has not been possible to include all of the ideas and arguments for change, nor descriptions of all the innovations that are underway on a large or small scale. In every provincial jurisdiction there are clinicians and managers who are experimenting with innovative ideas and efficiency-seeking practices, whose work is challenging existing practices. We need to harness the initiative and talent that exists in our midst and encourage its further development.

I have identified six areas for recommendations:

Benchmarks, Indicators and Ongoing Research

The 2004 First Ministers' *10-Year Plan to Strengthen Health Care*¹ committed provinces and territories to the process of establishing wait time benchmarks for the five priority areas noted above. Evidence-based benchmarks were announced on December 12, 2005, and the provinces and territories are now in the process of implementing changes to achieve these benchmarks by December 2007. First Ministers also committed to establish comparable indicators of access to health care professionals, diagnostic procedures and medical treatments. Provincial and territorial governments have indicated that, as of March 30, 2006, comparable indicators to measure progress against the benchmarks have been developed and approved. Continued research is essential. Our efforts to date make the best use of available evidence but, as work progresses, we will need more comprehensive knowledge and more conclusive evidence.

I recommend:

- 1. That the Canadian Institutes of Health Research (CIHR) undertake research to:**
 - evaluate the effect of the benchmarks established through the FPT process;
 - broaden the scope of benchmark research to include costing and appropriateness criteria; and
 - identify areas in which additional benchmarking is required or desirable to improve patient outcomes.
- 2. That multidisciplinary, collaborative panels (including researchers, clinicians and government representatives) be established to review evidence and recommend additional benchmarks to FPT governments.**
- 3. That CIHR develop additional capacity through existing health policy institutions across Canada to enable them to study best business and industrial practices to support wait time reductions.**

Management and Innovation

There are many practices that can be adapted from the experiences of business and industry to increase the efficiency and effectiveness of Canada's health care system. In many respects our health care systems have fallen behind other human service sectors in adopting modern management practices and the innovations that guarantee that services are provided at a high level of quality, consistency and timeliness. Our system can adapt high standards of performance from wherever they exist, using leaders to influence change and training programs to bring the workforce up to new performance standards.

¹ 2004 FMM 10-Year Plan to Strengthen Health Care is available on the Health Canada website found at: http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2004-fmm-rpm/index_e.html

I recommend:

4. A national network of wait time champions (one per province) be established to lead the development and promulgation of best practices throughout provincial health care systems;
5. As an extension of the foregoing recommendation, that provincial capacity for wait time coordination/navigation in health regions and major institutions be established;
6. That the Canadian Health Services Research Foundation implement a continuing, multidisciplinary educational program for health care professionals, for the purpose of developing wait list management leadership and skills and for a period of time that equips existing health care professionals to adopt best practices; and
7. That provinces and territories adopt best practices for wait times including:
 - the use of single common waiting lists;
 - an approach that permits patients to be referred to a speciality service that prioritizes the patient by acuity and offers the first available slot for intervention;
 - the use of queuing theories to alter current processes;
 - innovative case management;
 - team based care;
 - appropriateness; and
 - pre-habilitation programs to ensure fitness for surgery.

Information Technology (IT)

The rapid acceleration of efforts to develop information management and technology will play an important role in supporting innovation. Its most important aspect of this role will be to ensure that the right information is in the right hands at the right time. Information technology (IT) initiatives are costly to implement, but the resulting efficiencies and rebuilding of public confidence will mitigate the expense. Many features of IT require development, including:

- a system-wide electronic health record for all Canadians that will ensure that each physician, specialist, nurse or other appropriate health care professional has current and accurate information on which to base a diagnosis or treatment decision;
- electronic patient registries that will allow a fluent flow of patients through the system;
- digitalization of diagnostic images that provides the opportunity for faster access to images and elimination of duplicated diagnostic testing, resulting in faster diagnosis; and
- tele-health to provide increased access to patients who may be in remote areas or have mobility challenges, as well as providing new opportunities for professionals to provide team-based care.

Each of these technological advances increase the accuracy of and access to information for patients and professionals alike. Patients can expect to receive better care in a more timely manner as a result.

I recommend:

8. That the federal, provincial and territorial governments accelerate the pace of pan-Canadian health information technology through Canada Health Infoway;
9. That Canada Health Infoway:
 - Develop wait time tools as proposed;
 - Continue the development of the Electronic Health Record with a plan and timeline supported by FPT governments; and
10. That the development of IT health information systems in Canada be accompanied by public education to assure Canadians that privacy of information is secured.

Professional Roles and Responsibilities

The issue of wait times is a systemic problem that requires a systemic solution. Specific measures will be required to advance solutions. Physicians have played a large and important role in defining needs and solutions for wait list management in our systems. The continuous role of physicians is essential for any changes in how we manage wait list issues. In ensuring their involvement, a cultural shift is needed from individual contributions to system involvement and problem solving.

Physicians represent only one group of professionals involved in patient care. Other groups play important roles in the continuum of modern health care. These professionals organize and deliver care across facilities, in and out of acute care, in the home, in private offices and in community settings. The roles that physicians play as “gatekeepers” of the system, as leaders and independent professionals mean that they are key to system change. We need their support and involvement but also their commitment to full participation. Their ability to adopt the measures of change and the culture of change will serve as an important guide for other health care professions.

I recommend:

11. That FPT governments develop a broad base for receiving advice from medical communities with respect to change in the health system and long term planning. The Canadian Medical Forum can be asked to assume this role nationally, with provinces and territories developing similar capacities locally to achieve balanced influence when medical input is deemed important;
12. That provincial Colleges of Physicians and Surgeons establish professional and ethical standards and the means to monitor professional practice with respect to physician management of wait times in provincial health care systems. The Federation of Regulatory Authorities of Canada should coordinate this effort;

13. That faculties of medicine of Canadian universities develop curricula that support changing health care systems and changing expectations regarding the competencies that physicians will require to participate in these systems led by The Association of Medical Faculties of Canada; and
14. That FPT work on health human resources initiatives focus on re-defining professional clinical roles to enable health care professionals to work at their full potential and to offer innovations in health care, which are economical and sustainable.

Additional Issues

Several issues emerged early in my consultations that were not included in my mandate as Federal Advisor on Wait times but were sufficiently important that I want to comment on each. These issues are: wait time benchmarks for children, surge capacity, health human resources, “Cinderella” diseases and gender-based analysis.

Benchmarks specifically directed to interventions for children were not included in the decisions of the First Ministers in 2004. Yet the timing of interventions may be particularly critical for children for two reasons. First, there may exist in the normal development of a child a limited window of opportunity in which an intervention can have the most beneficial effect. Second, the delay of an intervention can cause normal growth and development to be impeded. We need to ensure that wait times for children are given due consideration.

Surge capacity is additional care capacity that is available when and if required. We are most familiar with the idea of surge capacity in the context of public health, such as in the circumstance of epidemics or pandemics. Severe Acute Respiratory Syndrome (SARS) gave health care systems reason to consider the need for planned capacity to be used in times of system stress. Surge capacity is discussed in this report to encourage collaboration on the need for specific regional and national capacities to address wait times and to enable systems to accommodate stress or overload within Canada’s borders.

The issue of health human resources (HHR) has been high profile both before and during the discussion of wait times. Shortages of family physicians, anaesthesiologists, nurses or other specialists and health care professionals have added to the stresses and pressures on the health care system. Shortages can add to the problem of wait times and prevent the implementation of solutions. All levels of government are working together on a pan-Canadian strategy to recruit and retain additional health care professionals. At the same time there is an effort underway to work toward innovative use of health human resources by maximizing the use of skills that various health professionals have acquired and by promoting team-based care.

There has been substantial progress over the last few years in understanding the effect of gender in the analysis of health conditions and solutions. Gender-based analysis (GBA) provides a different set of questions about decision making and policies in the practice of health care. GBA could study how men and women are differentially affected by waiting for care and could also be applied to additional questions that are associated with the choice of conditions, the effect of benchmarking and the outcomes of benchmarked care compared to care that is delayed further. GBA recognizes that there

are significant differences in access and use of health services that are affected by gender and takes this into consideration when providing advice to policy-makers.

I recommend:

15. That provincial and territorial governments give consideration to the access targets developed by the National Youth and Child Health Coalition and consult as required with clinical leaders in children's health care, in order to consider their implementation. Further, that the conditions affecting children be included alongside adult-related conditions at the outset of future benchmarking processes to ensure that children receive equitable attention to their time-sensitive needs;
16. That FPT governments mandate an expert group to investigate the need and potential for surge capacity through the development of regional centres of excellence; and
17. That ongoing research related to wait times adopts a broad approach to gender-based analysis in order to ensure that the issues of gender are considered thoroughly.

Public Education

The growing perception that long wait times are pervasive and that little can or is being done to improve them is eroding Canadians' confidence in the system's future. As we move forward with efforts to address wait times and implement system transformation initiatives, the Canadian public must not only understand why change is necessary but be fully informed of changes as they occur.

I recommend:

18. That the public be continually informed and updated of changes taking place in the Canadian health care system;
19. That a three-year public education campaign on wait times be initiated as a collaborative effort between federal, provincial and territorial governments; and
20. That a comprehensive, multi-dimensional public education effort with the capacity to leverage support from other partnering organizations be undertaken.

There are, of course, always financial implications associated with recommendations. Throughout the course of this work, various individuals and organizations were asked to estimate the costs of undertaking the research and initiatives that are the subject of these recommendations. These estimates are included in chart form in Appendix C. They represent notional estimates and have not been subjected to thorough analysis or examination. These estimates should not be regarded as final. The ultimate cost of programs and services is normally affected by negotiation, pre-existing agreements and the capacity of partners to produce intended results.

Additional considerations

It may appear to some that there are obvious omissions in this report. I want to address two of them here so that you can be assured that, while these issues were not formally included in my mandate, they were nonetheless within the scope of my concern.

First is the issue of prevention. Promotion of good health and prevention of disease and disability are crucial to the health of Canadians. Despite having a national infrastructure for public health for many years and despite the efforts of many in this field, it is only in the last decade or so that public health has taken its rightful place as a priority for governments and in the minds of Canadian citizens.

Promotion of good health and prevention of disease and disability has an obvious relationship to wait times. Demands on health care systems that could have been prevented make poor use of resources available in the acute care sector. Efforts to limit these demands are important; the responsibility to exercise what control we have over preventable conditions falls both to public health programs and to individuals, institutions and families within our communities. I urge governments to be mindful of this and to ensure that public health and prevention efforts are resourced to do the job that we require of them.

The wait times for First Nations citizens, and for aboriginal people generally, are not addressed in this report. Acute care services are the responsibility of provincial governments. First Nations and all aboriginal people receive acute care services under provincial and territorial jurisdiction. These patients are therefore moved through wait lists, schedules, diagnostic services or hospitalization in the same queues with all other Canadians. That is not to say that there are not particular issues of distance or timing that affect care, only that there is no separate acute care track that is particular to aboriginal patients. It is my understanding that the issue of waits is being explored by Health Canada's First Nations and Inuit Health Branch. I do, however, want to lend my support to the future investigation of wait times for First Nation and aboriginal patients. It has been my experience that issues of access to care for aborigines are especially complex. It would serve us well if this could be addressed fully.

I want to bring to your attention at the onset, an issue of terminology that you will undoubtedly note within my report. I refer frequently to "health care systems" when I am describing the health care delivery organizations within provinces and territories. I call these "systems" because they are managed independently by provincial and territorial governments, consistent with their jurisdictional right and responsibility. There are some aspects of these systems that are sufficiently similar or interconnected that we can, on occasion, think of our health care system as national in its character and function. Examples of these might be the administrative agreement for reciprocal billing between provinces or the reliance that one province or territory can have on another when assistance is required. Generally the language of the report indicates that while our health care systems are interconnected in some respects and share professional standards and program models, our work to build national consistency and equity, and to collaborate such that we make best use of limited resources, is not yet done.

Conclusion

Although Canada does not have one integrated health care system, provincial and territorial systems have evolved with remarkable affinity. Sooner or later each province and territory faces the same set

of challenges and works to find solutions that are more alike, one to the other, than they are different. In the next stage of developing our health care systems, we will require leadership in clinical care, innovation amongst managers and professionals, and the kind of culture that embraces change, improvement and efficiency. Without these characteristics embedded in our health care systems patients will continue to experience long waits for necessary care and health care professionals will find themselves frustrated by bottlenecks and inefficiencies. Without thorough engagement of the public we will struggle forward without their confidence and encouragement.

Our new federal government is looking to a Patient Wait Times Guarantee to raise the accountability bar for our health care systems. This is a commitment that will surely require careful analysis of implementation options and a thorough dialogue between federal, provincial and territorial governments. I believe that my recommendations are very relevant to this dialogue. In order to achieve the level of performance that a Patient Wait Times Guarantee implies, we will need to take all steps necessary to maximize the system's efficiency and effectiveness.

As a result of my consultations, it has become clear to me that the decision-making that is undertaken between levels of governments is sometimes overburdened. The complexities are such that agendas are full, and officials challenged to do their own work and the work of collaborating as well. It appears that the role of advisor, in this case for wait times, has been a useful role. Arm's length, the role has had sufficient autonomy and sufficient time to encourage discussion and develop ideas. As similar issues arise it may be that a similar model will be useful again.

Chapter 1: Introduction

1.1 Background

In recent years there has been an increasing attention to the state of Canada's health care system. Family doctors are in short supply, wait times for surgical procedures are increasing and emergency rooms are experiencing heavy patient loads resulting in lengthy wait times. We all know someone who has felt the effects of these conditions in some way. Federal, provincial and territorial governments continue to collaborate to find remedies to these problems and by doing so to relieve mounting pressures on health care systems. First Ministers' meetings deal with many issues, but an ongoing concern has been how to sustain the public health care system and implement efficiencies while at the same time providing comprehensive care to all Canadians in a timely manner.

The *2003 First Ministers' (FMM) Accord on Health Care Renewal*² and the *2004 FMM 10-Year Plan to Strengthen Health Care*³ reflected Canadians' concern that the health care system needs to respond more quickly to the public's needs. It also reflected the desire of First Ministers and Ministers of Health to increase accountability to Canadians. First Ministers intuitively understood that Canadians needed improved access to quality care.

In a separate but related event, the Supreme Court of Canada, in June 2005, made its decision on the Chaoulli-Zeliotis case, which resulted in the ruling that the Government of Quebec could not prevent the sale of private insurance for health care procedures covered under the provincial public health insurance plan. A majority of judges agreed that some health care wait times are unreasonably long and violate the rights of individual Canadians. Public interest in the wait time issue and the need for government progress for a solution relating to issues of access has increased as a result of this decision. It brought timeliness into the definition of access in a way that was new to the Canadian health care scene.

In 2004, \$41.3 billion in additional federal funding was committed for multiple initiatives to improve the Canadian health care system. Of this, \$5.5 billion was set aside for wait time-related initiatives. The fund has allowed the provinces and territories increased flexibility to respond to their own wait time priorities and has assisted them in building capacity to measure, monitor and manage wait times across the country. A year and a half later substantial progress has been made on these commitments by federal, provincial and territorial governments.

Health Ministers were also charged with the dual objectives of better management and measurable reductions of wait times in five priority areas (cancer, cardiac, diagnostic imaging, joint replacements and sight restoration). In order to achieve these goals, governments agreed to establish comparable indicators and evidence-based benchmarks for wait times by December 31, 2005 and multi-year targets to permit patients to receive care consistent with established benchmarks by December 31, 2007.

² *2003 First Ministers' Accord on Health Care Renewal* is available on the Health Canada website found at: http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2003accord/index_e.html

³ *2004 FMM 10-Year Plan to Strengthen Health Care* is available on the Health Canada website found at: http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2004-fmm-rpm/index_e.html

Federal, provincial and territorial Health Ministers announced evidence-based benchmarks on December 12, 2005 for “five types of non-emergency surgery, radiation therapy and cancer screening.” These benchmarks were developed from evidence identified in part by the Canadian Institutes of Health Research (CIHR), commissioned by provinces and territories for this purpose. These benchmarks represent a major step forward to achieve the progress that First Ministers intended. The achievement was not however perfect. In general there is scant evidence on which to base benchmarks. In the area of diagnostic imaging, for example, it was not possible to declare benchmarks for CT scans or MRI’s definitively. These will require more research before benchmarks can be identified.

Public Awareness about Wait Times

For the majority of the Canadian public the health care system and health care issues represent the number one priority for federal, provincial and territorial governments. Polls have indicated that 49% of Canadians believe current hospital (and clinical) wait times for surgical procedures are unacceptable and that Canadians wait an unreasonably long time for access to health care services.⁴

In recent years Canadians have expressed concern about the health care system in general. This concern has grown out of a waning confidence in governments’ ability to support and sustain the system, as well as Canadians having direct experience with wait times for diagnostic tests and surgical procedures that they consider too long. Cancer patients waiting for radiation treatments and individuals suffering from pain or increasing disability due to hip and knee conditions grow understandably frustrated with lengthy waits to receive care. “Consistently, Canadians identify long wait times as the number one barrier in accessing health services.”⁵ This barrier has become the focus for the federal, provincial and territorial governments who are working diligently to address these concerns.

The Health Council of Canada in June 2005 shared its view of the perspective of Canadians and the resonance that they felt with the FMM decisions of November 2004:

The Canadian public understands that wait times and wait-list management are complex issues that will require time and national coordination if they are to be addressed. Despite this complexity, the objectives of a national approach to improving wait times are basic and speak to Canadians’ core needs and values. Citizens want to feel confident that when they need it, they will get access to health care within a time frame that does not significantly compromise their health or well-being – and they want a system that is fair, providing the sickest people with the fastest access to care without compromising access for those whose needs are less urgent but no less real. These principles of the importance of individual access to care and equity at the system level should guide all decision-making around wait-list

⁴ *Eye on Health, Summer 2005*, p.6.

⁵ Health Council of Canada, *A Background Note on Benchmarks for Wait Times, November 2005*. (Ottawa: Health Council of Canada, 2005), p. 1.

management and must trump the interests of providers, administrators and governments.⁶

Canadian Wait Times Project (CWTP)

Following the commitment of First Ministers to develop evidence-based benchmarks, the federal government made a decision to appoint an independent advisor to aid with the complexities of the ongoing FPT process. I was appointed as the Federal Advisor on Wait Times in July 2005 with a mandate (Appendix A) to undertake activities to ensure “meaningful reductions in wait times” and to “identify and continue to develop consensus on establishing comparable indicators and evidence-based benchmarks”. In addition, I was mandated to examine the health care system, address existing knowledge gaps, and encourage the adoption of tools and methods to better manage wait times. These goals were to be achieved through dialogue with provinces, territories and stakeholders, such as health care providers and health system researchers.

An intergovernmental advisor, a communications advisor and an executive assistant, all seconded on a part-time basis from the Winnipeg Regional Health Authority (WRHA), supported the Office of the Federal Wait Times Advisor. In addition, my office was served by a group that came to be known as the Canadian Wait Times Project (CWTP), which consisted of a full time director, two policy analysts and an administrative assistant located at the WRHA and an additional analyst on a part time basis towards the end of the project. Funding for staff, travel and accommodations were provided by Health Canada. The project office operated at arm’s-length from Health Canada.

An independent, external Advisory Group was established early in the project to provide direct advice and support throughout the project. The Advisory Group held one face-to-face meeting and three teleconference meetings at various stages. The members of the Advisory Group, individuals and organizations that contributed to this report at various levels throughout the consultation process are listed in Appendix F. I owe a debt of gratitude to each one of these individuals for their expertise and their contribution to my understanding of the wait time issue and the larger issues of transforming the Canadian health care system.

Activities of the Federal Wait Times Advisor

It was apparent at the onset of this task that FPT governments were engaged in work to meet the commitments of the *10-Year Plan*. Many advances had been made at all levels of the health care system to reduce wait times, some more visible than others. Political leaders and governments had committed human and financial resources and by doing so had raised public confidence that wait times could and would be reduced. Provinces and territories have since funded Regional Health Authorities (RHAs) to invest in improved capital and technological capacity as well as additional health human resources. Health care professionals are making changes deep within clinical settings and systems to make care more efficient and more timely.

⁶ Health Council of Canada, *Ten Steps to a Common Framework for Reporting on Wait Times*, June 24, 2005

1.2 Overview of Phase I

The commitment of First Ministers to establish evidence-based benchmarks by December 31, 2005 meant that the project naturally evolved into two phases. Activities in Phase I focused primarily on provincial and territorial engagement in order to achieve the benchmarks. Phase I also served as a period to receive initial feedback and support for the concepts of system transformation that in my view are required not only to sustain the effort that began with the first set of benchmarks, but to substantially reduce or eliminate wait times in the longer term.

Our regular meetings were initiated with the Ministers and Deputy Ministers of Health across Canada. Personal visits took place in provincial capitals throughout the fall of 2005 with provincial Deputies and with territorial Deputy Ministers as a group. The goal of these discussions was to ensure that my work was supportive of individual jurisdictions, each with their own challenges associated with wait times, but also so that my mandate could encourage further collaboration.

In addition to the process of consultation with provinces and territories, I was provided many opportunities to present at conferences and meetings to promote a broader understanding of my mandate as Federal Advisor and, more importantly, to receive feedback on key issues facing the health care system and relating to wait times.

Finally many national health agencies and provincial, territorial, and federal groups have had strong commitments to improving the health system of Canada. I had the privilege of exploring issues of wait time management with these groups over many opportunities for discussion. A complete list of presentations can be found in Appendices E and F.

Some may note that this discussion about wait times does not address First Nation or aboriginal issues. For the purpose of this report, wait times are a part of acute care services. Acute care (largely the provision of physician and hospital services) falls exclusively within the jurisdiction of provincial governments. Consideration of issues associated with acute care wait times therefore encompasses all acute care patients in provincial delivery systems, including all aboriginal patients.

The primary objective of the Phase I of the Canadian Wait Times Project (July to December 2005) was to assist in finalizing the work begun by the provincial and territorial governments to establish wait time benchmarks in the five priority areas of cancer, cardiac care, diagnostic imaging, joint replacement and sight restoration.

A secondary objective during Phase I was to develop and promote the understanding of common definitions for key wait time terminology such as benchmark, indicator, access target and wait time. To facilitate the use of common, accurate definitions a technical briefing was held prior to the formal announcement of the benchmarks.

The Canadian Institutes of Health Research (CIHR) assisted the provinces and territories by developing evidence to support the declaration of benchmarks. Benchmarks (Table 1.1) with the exception of diagnostic imaging, were announced by FPT governments immediately following a technical briefing on December 12, 2005. The announcement not only provided the formal details of the benchmarks declared by the provinces and territories but also established authoritative voices related to wait times management.

Table 1.1: Benchmarks Announced December 12, 2005

<u>Priority Area</u>	<u>Service</u>	<u>Wait Time Benchmark</u>
Cancer	• Curative Radiotherapy	• within 4 weeks of being ready to treat
Cardiac	• Coronary Artery Bypass Graft	• Level 1: within 2 weeks • Level 2: within 6 weeks • Level 3: within 26 weeks
Sight Restoration	• Cataract	• within 16 weeks for patients who are at high risk
Hips & Knees	• Fixation of Hip Fractures • Hip Replacement • Knee Replacement	• within 48 hrs • within 26 weeks • within 26 weeks
Diagnostic Services	• Mammograms • Cervical Screening	• women aged 50-69 every two years • women starting at 18 yrs old, every three years to age 69 after two normal pap smears

1.3 Overview of Phase II

With the declaration of benchmarks, the focus in Phase II of the project turned to the promotion of a more fully developed strategy for transforming the health care systems that would build upon and sustain the efforts that began with benchmarks. This work involved further consultation with provinces and territories, many presentations and discussions. The second round of meetings with the provincial and territorial Deputy Ministers of Health included more specific discussions on the various elements of system transformation and frequently included other provincial and territorial health system officials who were able to bring additional expertise to the table.

Consultants were obtained under contract to undertake qualitative research to inform the content of this report in the areas of management and innovation, professional roles and responsibilities, surge capacity and public education.

In addition, three invitational workshops were held. The first, held in Winnipeg on December 9, 2005, and the second, on March 17, 2006 in Toronto, were useful in fully understanding the complex issues that would be the subject of research on benchmarking and system change discussed in Chapter 2. The

third meeting held on March 2, 2006 in Winnipeg addressed issues associated with professional roles and responsibilities. This discussion informed Chapter 5 of this report.

1.4 Conclusion

Canada-wide consultations with provincial and territorial governments, many health care professionals, academics and managers have aided in the completion of this report. I believe that my recommendations reflect the varied perspectives and some of the hard thinking that are necessary to bring about change.

Chapters 2 through 8 will detail the thinking behind the recommendations of this report. It may appear that there is an endless inventory of choices for innovations and change. But in fact, while the choices are indeed many, they are not entirely optional. I believe the six strategies that are presented are interdependent – they go hand in hand to ensure the change that we have begun will continue, wait times will be reduced and Canada's health care systems will perform better and produce better patient outcomes.

Chapter 2: Benchmarks, Indicators and Ongoing Research

Progress has already been made to improve access to health care across Canada. First Ministers and Ministers of Health have been concerned with the public perception of health care and access to services, both in terms of the availability of quality care and wait times. As a result there have been serious efforts over a number of years to build upon the solid foundation of health care services in Canada.

Provinces under the Canadian constitution have the responsibility for direct service delivery of health care. Provincial delivery systems have developed over time around trends in the provision of medical services nationally and internationally and in response to specific needs of provincial populations. Though provinces may provide a similar range of services by similar professional groups, the organization of service delivery might be quite different.

On the national front, *The Hospital Insurance and Diagnostics Act (1957)*⁷ was the “largest governmental undertaking since the war and would require federal-provincial cooperation on a scale never before known” providing all Canadians with access to uniform hospital services. The *Medical Care Insurance Act* followed in 1967. *The Canada Health Act (1984)* further levelled the playing field by banning extra billing and user fees associated with both medically necessary hospital and physician care. Criteria were established in support of a health care system that is universal, accessible, portable, comprehensive and publicly administered. Efforts to preserve the process of equity and comparability continue to this day.

The recent topic of benchmarks and indicators speak to issues of standards and comparability. Provinces have developed data systems to meet their own needs. There is now a need to develop systems with common data elements to bring definition and consistency in reporting to Canadians. For example, the use of common indicators to measure progress in meeting benchmarks across the country would contribute to this objective.

2.1 The 10-Year Plan to Strengthen Health Care

In September 2004, First Ministers agreed to the *10-Year Plan to Strengthen Health Care*. The *10-Year Plan* committed the provinces and territories to reduce wait times in priority areas, while recognizing different starting points, priorities and strategies across the country. To accomplish this, Ministers of Health were charged with a commitment to establish evidence-based wait time benchmarks beginning with five areas: cancer, cardiac, diagnostic imaging, joint replacement and sight restoration. In addition each province and territory agreed to set multi-year targets to meet the benchmarks by the end of 2007. A third commitment was for provinces and territories to establish comparable indicators of access to health care professionals, diagnostic procedures and medical treatments.

⁷ Taylor, Malcolm, *Health Insurance and Canadian Public Policy: The Seven Decisions That Created The Canadian Health Insurance System and Their Outcomes*, 2nd Ed., 1987.

2.2 Terminology

Health scientists do not always agree on definitions for such things as benchmarks, indicators and access targets. When other health professionals, health bureaucrats, politicians or the media enter into the discussion a consensus is even harder to achieve. It was clear to me early in this project that there was an absence of clear definitions in debate, discussion and media reports that was making the work of wait times harder. There is a need to promote the understanding of accurate wait time terminology for the public, the media and health care providers as well.

What is a wait time?

The federal, provincial and territorial announcement on benchmarks on December 12, 2005 established the following definition of wait time:

A wait time begins with the booking of a service, when the patient and the appropriate physician agree to a service and the patient is ready to receive it. The appropriate physician is one with the authority to determine the nature of the needed service. A wait time ends with the commencement of the service.⁸

What is a benchmark?

Wait time benchmarks are evidence-based goals that express the amount of time that clinical evidence shows is appropriate to wait for a particular procedure or diagnostic test.⁹ A benchmark may be identified when scientific evidence shows that the outcome of an intervention is negatively affected after a certain period of waiting has elapsed. The nature of a benchmark, due to the evidence that supports it, is such that it does not change from one system to another.

What is an indicator?

Indicators are used to measure how well a system is performing in relation to a benchmark. Comparable indicators have the additional benefit of allowing comparisons across health systems, for example from one province to another. Indicators rely on data collected consistently from one site to another.

What is an access target?

Evidence-based benchmarks have application nationally. Targets, on the other hand, may be set by each province and territory based on the jurisdiction's practical capacity to achieve them. As agreed to in the *10-Year Plan*, targets are interim performance goals set by each province/territory over a period of time to guide work towards the achievement of the benchmark. A target is discretionary and can take the form of a performance goal.

⁸ FPT Announcement, December 12, 2005

⁹ The definition used for the purpose of this report is based on the terminology agreed to by provinces and territories and announced publicly on December 12, 2005.

2.3 Using benchmarks to provide timely access

Measurements against benchmarks will allow Canadians to see how well their province or territory is performing to provide timely access to selected health services. In order to make benchmarks work, other system changes are required, all of which provinces are working on:

- Using information technology to collect data on wait times and measure progress;
- Improving the way services are delivered to make them more efficient and patient-focused;
- Managing access using consistent criteria to assess the needs of patients and how urgently they require care;
- Clarifying how managers and health providers are responsible for enhancing access to care;
- Evaluating access to health services and health outcomes to help determine where resources should be directed for the most effective results; and
- Communicating clear information to Canadians who have an interest in wait times.

2.4 Using indicators

Indicators are necessary to measure progress against benchmarks at a later date. Comparable indicators have been used to report annually to Canadians on key areas identified by First Ministers even before the declaration of the benchmarks in December 2005. The September 2000 First Ministers' Communiqué on Health gave direction to Health Ministers to develop a "comprehensive reporting framework, using jointly agreed upon comparable indicators of health status, health outcomes and quality of service"¹⁰. In September 2003, fourteen jurisdictions including the federal government released reports to their citizens. The February 2003 *First Ministers' Accord on Health Care Renewal* directed Health Ministers to develop additional indicators to supplement the previous work on comparable indicator reporting. Provincial reports were released in 2004.

Provinces and territories have now established comparable indicators for health services that have common benchmarks, such as cardiac bypass surgery, radiation therapy for cancer and cataract surgery, to track how well they are improving access to care. Using these indicators, each province and territory will be able to report on access to selected health services. For example, each jurisdiction will be able to identify wait times for hip and knee replacements, and the public will be able to compare results across Canada. The indicators, endorsed by the provinces and territories to meet the commitments of the *FMM 10-Year Plan to Strengthen Health Care*, were communicated to Health Canada's Deputy Minister in a letter dated March 30, 2006.

¹⁰ The September 2000 First Ministers' Communiqué on Health

2.5 Using access targets

Access targets are another vehicle for developing reasonable standards of care. Access targets can be developed at the provincial level and may reflect the policy or program direction of the provincial government. Provinces and territories have the option of identifying access targets that will motivate the system to improve on wait times for other conditions if they think it appropriate. Access targets could be developed based on consensus of professionals if evidence is not yet available or sufficient.

2.6 Ongoing research to support wait times

The declaration of the first set of benchmarks has given us an evidence-based foundation for measuring progress in reducing wait times in the future. It is my belief that if we are to sustain the work that began with benchmarks, a process for ongoing research and decision-making is needed to guarantee the process is transparent to care providers and the public.

It is my view that future benchmark research should take into account issues of cost and appropriateness. These are issues new to the development of benchmarks and warrant brief discussion here.

Cost per case is an important concept because when a procedure is refined, quality measures have been incorporated and criteria established to determine timeframes and eligibility, the next logical assessment is related to cost per case. Not all procedures, interventions or surgeries can be costed definitively. Many procedures are complex and may be affected differentially by the acuity of the patient or by other factors. But for many procedures that are commonplace in our health care systems, it is possible and desirable to ensure that the cost by unit is comparable from one site to another. It is a necessary step in fulfilling our responsibility to ensure that our resources are used wisely.

Appropriateness is also relevant to benchmarks. Not all patients benefit equally or benefit at all from a particular intervention. Research with respect to benchmarks should tell us not only if an intervention cannot be delayed, but also if and when the procedure is appropriate.

The benchmarks that were announced on December 12, 2005 were established as a result of research undertaken by researchers whose proposals were peer-reviewed. Benchmarks were declared after provincial and territorial Deputy Ministers of Health received advice from the Canadian Institutes of Health Research (CIHR)¹¹ and recommended to Ministers of Health that the benchmarks be accepted as evidence-based and used to set standards for appropriate wait times for care.

We propose that CIHR develop a plan to address research associated with benchmark development. These fall into two areas:

¹¹ The Canadian Institutes of Health Research (CIHR) is the Government of Canada's lead agency for health research with a mandate to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened Canadian health care system. (CIHR website: <http://www.cihr-irsc.gc.ca/e/22948.html>)

- Research to develop new knowledge that will allow us to establish and declare additional evidence-based benchmarks in the future.
- Health system (operational) research that will result in improvements and interventions in system processes, including the evaluation of the first set of benchmarks to assess their impact on health care outcomes.

The Benchmark Research Agenda

We have not yet tested the effect that benchmarks will have on patient outcomes and on health care systems. This is an important first step in deciding whether additional benchmarks in other clinical areas should be developed. When the time comes to identify additional benchmarks two key issues must be addressed:

- a process to identify priority conditions for developing benchmarks; and
- responsibility for recommending benchmarks and where responsibility lies for declaring national benchmarks.

It is critical that there be an ongoing research process to sustain the effort that began with the declaration of the first set of benchmarks. Our first attempt to produce benchmarks in the five areas identified by First Ministers offered many challenges. Peer-reviewed research in these areas was scant. It was not possible, partly because of the timeframe that is required to mount a request for proposals and to identify suitably qualified researchers from relatively small pools of experts, to identify benchmarks in all five areas. Research to identify cancer related benchmarks and diagnostic imaging benchmarks (for CT and MRI scans) were not identified.

Given the resources that benchmarked care will attract or require, we can expect many clinicians and patients to put forward their choices for benchmarks early on. It is important to determine how the next set of benchmarks will be chosen. This will require a process to establish who decides what research will be undertaken, the order of priority; and what condition, procedure or category the research will focus on for a potential set of new benchmarks. These efforts must be undertaken collaboratively between the research community and governments. It may be that CIHR's research institutes, put in place to focus on research needs in major medical disciplines, can play a role in this respect as well.

It is equally important to decide who will have the responsibility for declaring benchmarks once research has been conducted and evidence is available. It is my view that a "trigger group" consisting of researchers, clinicians and senior officials of government should be responsible for recommending to elected officials the declaration of future benchmarks. I believe that it is necessary for participants to share responsibility for recommendations and to consider perspectives other than pure research. Ministers of Health can have, as a consequence, confidence that a broad range of implications have been considered.

The Health System (Operational) Research Agenda

A substantial amount of work is taking place across the country on issues related to system improvement. This kind of research depends upon root cause analysis that examines roles and procedures associated with care, to identify where efficiencies are absent and bottlenecks exist.

Operational research can document patient flows and time procedures, propose change and evaluate its success in meeting new goals. It can examine the role that technology plays in efficient care and also that of care providers, the public or the media play in embracing change or rejecting it. It is in this area of research that the business and industrial practices successful in other fields can be evaluated for application in operating rooms, wards and diagnostic clinics. The machinery of our health care systems — process and flows, organizational design and incentives — can be tested to determine whether it supports or hinders wait time efforts.

The Networked Centres for Health Innovation

Despite the fact that many industries and businesses use queuing theory and industrial practices routinely to streamline their processes, the application of this thinking to health care systems is relatively rare. We have not sufficiently exploited the academic resources available to us from business management schools or industrial engineering. CIHR has proposed that a networked partnership be created between existing health services research centres to develop capacity in management practices. This network is conceived as a partnership between the federal government (represented by CIHR) and provinces/territories to build on existing expertise and collegial relationships in health care systems. Researchers, health care practitioners, health system managers and policy makers could work in collaboration on activities to:

- identify high priority issues and plan research studies on topics within those areas;
- plan knowledge translation activities;
- evaluate the impact of activities on performance of health care systems;
- communicate findings; and
- examine the work of other centres and apply them as appropriate.

2.7 Conclusion

Establishing benchmarks for medical care is a new phenomenon in Canada's health care system. It is too early to know the impact of using benchmarks.

The research described here is proposed to help us find out the effects, to refine or approve our methods, and move on to new solutions if need be. CIHR has systems in place to manage these research processes and the mandate to ensure that new knowledge is transferred to decision-makers and care providers.

Chapter 2: Benchmarks, Indicators and Ongoing Research Recommendations

1. That the Canadian Institutes of Health Research (CIHR) undertake research to:
 - evaluate the effect of the benchmarks established through the FPT process;
 - broaden the scope of benchmark research to include the cost and appropriateness criteria; and
 - identify areas in which additional benchmarking is required or desirable to improve patient outcomes;
2. That multidisciplinary, collaborative panels (including researchers, clinicians and government representatives) be established to review evidence and recommend additional benchmarks to FPT governments; and
3. That CIHR develop additional capacity through existing health policy institutions across Canada to enable them to study best business and industrial practices to support wait time reductions.

Chapter 3: Management and Innovation in Health Care Systems

The development of benchmarks and targets against benchmarks were a necessary short-term goal to meet the commitments made by First Ministers in September 2004. However, the concerted efforts that have been taking place over the last few years to shorten wait times will not be sustained unless the machinery of health care systems is transformed. Without these transformations it is unlikely the system will be able to sustain these wait time reductions without significant financial infusions. Our goal must be to ensure that the recipient of care, *the patient*, and processes and quality of care, are the priorities of caregivers and care systems.

There are improvements that can be made now within existing health care systems that will have long-term effects. These include:

- adoption of new management, business and industrial practices¹² by provinces and territories, regional health authorities and health care institutions;
- development of wait time coordination expertise in provincial and territorial health care systems including wait time champions and coordinators who assist both patients and their families to navigate complex health care systems; and
- development of a training program for current clinical leaders, nurse managers and other health care professionals in wait list management practices.

We already know from experience that the maintenance of individual wait lists by individual specialists contributes to lengthy waits for some patients. Opportunities for earlier care, perhaps with another specialist, are often missed. Our system will benefit from:

- use of single common waiting lists;
- an approach that permits patients to be referred to a speciality service that prioritizes the patient by acuity and offers the first available slot for intervention;
- the use of queuing theories to alter current processes;
- innovative case management;
- team based care;
- appropriateness; and
- pre-habilitation programs to ensure fitness for surgery.

You will note that this report refers to managerial, industrial and business practices and or innovations. For the purposes of these discussions managerial practices refer to issues of governance, supervision, planning, accountability, comptrollership – those functions that are normally associated with managerial responsibility; industrial refers to the creation of efficiency through techniques and mechanisms that expand on collective human labour and make for the best use of time, capital and human resources; business practices in the context of health care refers to administrative processes including communication, data collection and sharing, paper flow and record keeping.

Pre-habilitation may allow for improved fitness for surgery and fewer cancellations. Weight loss, blood pressure control and blood sugar control can all be improved through these processes. A patient would only enter a wait list when they were fit to do so and when benefit is minimized.

The attention given to unacceptably long waits over the last several years has given us insight into how wait times can be reduced or eliminated. This chapter explains why waits exist and provides an inventory of necessary system innovations. All decision-makers and health care leaders must be aware of this body of knowledge. These innovations are now being implemented in many sites throughout Canada and show great promise. Finally, there is a growing interest in issues of appropriateness. The first issue of appropriateness pertains to the choice of care the patient will receive; the second issue relates to appropriate and efficient use of available resources.

3.1 Why are there waits for services?

There are a variety of factors that influence wait times:

- the type of care that the patient requires;
- the doctor whose list the patient is on;
- how urgently the patient requires care; and
- other factors related to individual patient needs or conditions.

Capacity is usually not measured¹³

Typically the providers of health care services know their activity or utilization level but may not know their capacity or demand. For example, in primary health care settings, there are patients who phone for appointments but are turned away. These individuals may go elsewhere or not seek care at all. This means that appointment books reflect only those individuals who successfully schedule an appointment. In order to accurately measure demand, it is necessary to record calls where an appointment has been requested and refused.

In addition, actual capacity is usually unknown. One example is the practice of routinely scheduling treatment based on thirty-minute intervals when the average procedure may take only 17 minutes.¹⁴ A study has shown that bookings were done on this basis “because some procedures took 30 minutes”. In this instance there was almost 50% more capacity than was being utilized.

Appropriateness of care

Appropriate health care is when the health benefit exceeds the negative consequence of not having treatment by enough of a margin to justify treatment.

¹³ Refer also to Chapter 6: Additional Issues: 6.2 Surge Capacity p. 66-70

¹⁴ M. Carter, *Evidence for Improvement vs. Evidence for Judgment: Choosing the Appropriate Tools for the Task*. Sixth International Conference on the Scientific Basis of Health Services. (Montreal. September 20, 2005).

The University of British Columbia (UBC) evaluated the indications and outcomes for six elective surgical procedures and reported the findings in 2002 in the Canadian Medical Association Journal. The UBC study found that 94% of elective hip replacement patients were better after surgery, 4% were unchanged in their symptoms and 2% were worse.¹⁵ On the other hand, only 70% of cataract surgery patients were improved while 26% actually had worse vision after the procedure. It appears that most of the joint replacement patients were getting appropriate care while many cataract patients were not. If one-quarter of Canadian cataract surgery patients should not have surgery at all, wait lists for this procedure could be eliminated or substantially reduced.

Another example of appropriate use of health care services is demonstrated by the use of the Ottawa Ankle Rules.¹⁶ We know that the Ottawa Ankle Rules can decrease the need for x-rays by up to 40% while not actually missing anyone who has a broken bone.¹⁷ A study of Canadian emergency physicians showed that less than one-third of these physicians were using the rules correctly.¹⁸ The implementation of the Canadian CAT (Computed Axial Tomography) Scan Rule for patients with head injuries¹⁹ has the same potential to reduce the need for CAT scans in these instances by 40% or more.²⁰

3.2 A perspective on health care waits and delays

Canadians need to be aware that just because there is a wait for care it does not mean that the wait is medically unacceptable. However nobody wants to wait, or should wait, months for an artificial joint while suffering pain or disability. There may be other circumstances in which it is convenient for a patient to delay major surgery by a week or two to wrap up loose ends or make arrangements with family or friends to assist with their impending recovery. As well, some patients in consultation with their physicians may prefer to delay surgery for “pre-hab”.²¹

Sometimes it is the unpredictability of a delay rather than the length of the delay that presents the problem. For example, people often have to make special arrangements for care of their home or dependents when they have surgery. Having a specific date for surgery may allow time to mobilize family and friends. Without a specific date or with a cancellation, it can be difficult or impossible to make such arrangements.

¹⁵ C.J. Wright, G. Wright, K. Chambers, et al., “Evaluation of indications for and outcomes of elective surgery”, *Canadian Medical Association Journal*. 2002;167:461-466.

¹⁶ Stiell IG, Greenberg GH, McKnight RD et al. “Decision rules for the use of radiography in acute ankle injuries: refinement and prospective evaluation”, *Journal of the American Medical Association*. 1993; 269:1127-1132.

¹⁷ J. Heyworth, Ottawa ankle rules for the injured ankle. 2003;326:405-406.

¹⁸ J.C. Brehaut, I.G. Stiell, L. Visentin, et al. “Clinical decision rules in the “real world”: how a widely disseminated rule is used in everyday practice”. *Academic Emergency Medicine*. 2005;12:948-957.

¹⁹ I.G. Stiell, G.A. Wells, K.L. Vandemheen, et al. “The Canadian CT head rule for radiography in alert and stable trauma patients,” *Journal of the American Medical Association*. 2001;286:1841-1848.

²⁰ I.G. Stiell, C.M. Clement, B.H. Rowe, et al. “Comparison of the Canadian CT head rule and the New Orleans criteria in patients with minor head injury” *Journal of the American Medical Association*. 2005;294:1511-1518.

²¹ Pre-hab. is rehabilitation prior to the procedure the goal of which is to hasten recovery.

3.3 Best practices and efficiencies

Healthcare is sometimes compared to a “cottage industry”. Over time each province and territory, region, facility and doctor’s office has developed their own best practices designed to meet their individual needs or those of their patients. It is only natural that they would feel the pride of ownership for having created systems or process that have shown success. Difficulty arises from the fact that while there are many innovative ideas that are in practice across Canada these ideas are not shared across jurisdictions. This means that our health care system is really a patchwork of systems often lacking efficiency and resistant to change when new best practices are identified.

Many best practices exist and could be replicated. One example is the Kingston Surgical Booking system, which was developed over eight years, and now provides an overall view of the city’s surgical waiting list. It keeps track of the actual time taken for individual surgeons to perform different procedures and to ensure most efficient booking of procedures. The system also provides alerts for pre- and post-operative care. It can warn clinicians about the need for a lung function test prior to surgery or the need for a rehabilitation bed after surgery. Chapter 4 will address the importance of information technology in these activities as it relates to system transformation and the reduction or elimination of wait times.

One of the more recent applications of better business practices is the Alberta Hip and Knee Replacement Project.²² Initially the project attempted to have referring doctors complete a referral template to ensure that appropriate investigations had been completed. However, as the project progressed it was found to be easier to place family doctors into the clinics to assist with the initial work up of patients. Patients are assigned to case managers who track them throughout their care.

Specialization

Specialization is another means of achieving efficiencies within health care systems. There are many examples of specialized centres. Toronto’s Queensway Surgicentre, a division of the Trillium Health Centre (a public hospital) is the largest not-for-admission surgical centre in North America. Another example in Manitoba is the provincial government purchase of the Pan-Am Clinic from its private sector owners. The Clinic now operates as a unit of the Winnipeg Regional Health Authority (WRHA).

Leadership

There are many examples of leadership that have resulted in innovative ideas. It will serve our systems well to identify individuals who are trained, who have leadership abilities and clear and measurable objectives to bring about change. Too often healthcare organizations have little capacity to take on quality improvement projects. This can be a significant barrier to innovation. In many instances, a barrier to making an innovative improvement is that health care organizations until recently have had little capability for quality improvement projects.

²² Alberta hip and knee replacement project: Interim results. Alberta Bone and Joint Institute. December 2005. Found at: http://www.albertaboneandjoint.com/PDFs/Int_Rep_Dec_19_05.pdf.

To effectively engage in quality improvement an organization must:

- include quality improvement in its strategic plan;
- provide leadership;
- ensure resources are available to support quality improvement activities;
- develop measures to assess quality and have regular quality monitoring; and
- ensure that feedback is provided with reports to the appropriate unit and up through the organization.

Role Definition

Discussions on health human resources have for many years focused on capacity — the number of training spots available in medical schools, universities and colleges, recruitment, retention and repatriation initiatives. Supply is an important health human resource issue, but so is role definition. Role definition with respect to the current workforce is relevant to wait time management. For example, nurse anaesthetists have the potential to relieve surgical backlogs resulting from a shortage of anaesthesiologists and nurse practitioners, working within their scope of practice, can assume broader clinical functions in primary care settings. Enhancing the role of various health care workers increases capacity and makes more appropriate use of physician time. Chapter 5 will address this issue as well.

3.4 Models for quality improvement

There are models for quality improvement that have shown success and are in use both internationally and nationally. One example is the UK's National Health Service (NHS) Institute for Innovation and Improvement.²³ The Institute was created to lead a quality improvement activity that applies evidence to practice by encouraging clinical teams within organizations to test changes. The Institute has also used a collaborative model where teams from different organizations work on the same issue over the course of 6 to 12 months and compare the results. This initiative has achieved significant reductions in wait times in the UK over the past six years.²⁴

The Saskatchewan Health Quality Council has developed its own process to improve access. The Council draws upon the experience of organizations that have demonstrated success with a particular initiative.²⁵ For example the Saskatoon Community Clinic implemented an "advanced access" system a number of years ago. Staff from the Clinic are presently assisting the Council to implement province-wide, same day access to primary health care by 2010.

²³ For more details see: <http://www.institute.nhs.uk/nhsinstitute>.

²⁴ G. Bevan, C. Hood, "Have targets improved performance in the English NHS?" *British Medical Journal*. 2006;332:419-422.

²⁵ For more details see: <http://www.hqc.sk.ca/portal.jsp?mpqBiB5Pkt0FgPM/yFSUuTBIzBf0QflQkUwK4QBZaJtdpqKPgr7c14zOVcA+lmY4>

While the collaborative model of quality improvement has had some success, it can be expensive to operationalize. A recent review observed that organizations need a commitment to quality improvement to ensure that a collaborative initiative will have an impact on their organizations.²⁶ Organizations which successfully ran collaboratives also attempted to create a culture for quality. They focused on process and outcome measurement to drive change.

3.5 Modern methods of queue management

Queuing Theory

Queuing theory is a branch of mathematics that deals with waits and delays. It contributes to the practice of advance access (also called open access).²⁷ Queuing theory can be applied to improve flow whenever something or someone arrives from somewhere else, has something done to them and departs. Applications of queuing theory are used routinely for air traffic control, manufacturing processes, amusement parks and many other aspects of day-to-day life, including inventory control in hospitals. Yet in an area as important as acute care, there has been little use of queuing theory to reduce patient waits in the health care system.

Queuing theory uses various techniques or tools. The following are examples of queuing tools that can make service more responsive to patient waits.

Advance Access

One example of managing waits and delays is referred to as “advance access”. Many family doctors have wait lists of four weeks or more for routine appointments. Advance access is a method of organizing, scheduling and planning patient flow in office practice with the goal of scheduling appointments on the day of choice, including the same day.

Advance access typically uses this analysis:

- assess whether capacity is sufficient to meet demand;
- if capacity is sufficient to meet demand, temporarily increase resources to clear the backlog; and
- if capacity appears insufficient for demand, then attempt to smooth capacity and reduce demand.

If these attempts are unsuccessful, then a bottleneck exists that must be identified and rectified.

²⁶ L.R. Ayers, S.C. Beyea, M.M. Godfrey, et al. “Quality improvement learning collaboratives.” *Quality Management in Health Care*. 2005;14:234-247.

²⁷ For further information on queuing theory see University of Windsor’s Dr. Myron Hlynka’s Queuing Theory at: <http://www2.uwindsor.ca/~hlynka/queue.html>.

Dealing with bottlenecks

In instances where a bottleneck exists, a root cause analysis may be needed to determine if the cause is a result of a shortage of capital, human or other operating resources. There may be instances where new or additional resources are necessary to eliminate the bottleneck. Analysis should be repeated on a regular basis since over time bottlenecks in the process may move around. The goal is to even the flow by reducing variation as much as possible. This is only possible when the whole pathway of care can be seen and managed.

Smoothing Capacity

Smoothing capacity means eliminating the peaks and valleys of capacity that plague health systems. For example, there are more discharges from hospitals on Friday than other days, especially Sundays. That means, in general, hospital staff rush on Friday to discharge patients often competing for orderlies, pharmacy orders and other services. Patients who arrive home with questions may not be able to reach the family doctor or staff who took care of them in hospital.

Health systems also tend to increase variation by creating multiple lines for services for different priority ratings or doctors, similar to a line up at a bank. As we know, more people can be processed when one line feeds all the tellers. When there are separate lines, some lines move more quickly than others. Sometimes, one line will be free when there are lines for the other tellers. In the example of a bank line, it may take a minute or more to identify the long line and move someone over. Frequently it is a person from the end of the longer line, rather than the front or middle of another line that is moved or moves to the free teller. This action compromises fairness.

When delays for health services get long, the numbers of patients who do not attend for their appointments rises. They might have received care elsewhere or simply forgotten that they had an appointment because of the long wait. In addition, some patients deteriorate and may no longer be appropriate candidates for the scheduled care. Staff may call patients who live nearby and are mobile but ignore those who have greater urgency. If the vacant slot is not filled, the capacity is lost and cannot be regained.

Prioritization can actually make delays worse. It is understandable that when there is not enough capacity, staff will prioritize patients, creating separate categories, which result in multiple queues and more capacity/demand mismatches. In most instances there is enough capacity but it is not used efficiently. Doctors usually administer their own wait lists through their offices and as a result some doctors or some hospitals end up with longer lists than others.

It is also the case that more appropriate analysis at the onset of care can reduce demand. Many Canadians face long waits for specialist visits. Throughout Canada, many specialists routinely schedule referrals as one-hour appointments. In some instances it may be possible to schedule a shorter visit or avoid having the patient visit the specialist at all if the issue is not complex and can be addressed with a 5-minute phone call between the family doctor and the specialist. In other cases, the patient (and family) may require a half-day assessment from a multidisciplinary specialist team due to the complexities of the case. Assessing the need before hand could save valuable time that could be used where it is needed most.

Inappropriate use of resources

Inappropriate use of available resources also contributes to lengthy waits for services. An example of this is in the field of diagnostic imaging. We know that there are instances of repeated exams resulting from x-ray films that are inadvertently lost or inaccessible. We know too that wrong exams may be ordered; an exam might not be required at all; or x-ray exams are ordered in a process of elimination. Inappropriate use of resources is a major contributor to lengthy wait times and increases costs unnecessarily.

A pilot study undertaken by the Canadian Association of Radiologists (CAR) has shown that only 86% of requests for diagnostic testing were appropriate. In 9% of the cases, a more appropriate test should have been ordered, resulting in a duplication of studies. In 4% of cases imaging was not necessary at all. This means that 10% of referrals or close to 4 million exams per year could have been eliminated. This represents the workload of 200 radiologists.²⁸

Multi-step health care

Most health care encounters involve several steps. For example, arthritis patients usually start off being treated by their family doctors. Eventually, if their joint pain or disability increases, the family doctor will refer the patient to a rheumatologist or an orthopaedic surgeon. After the initial specialist visit, the patient will usually be sent for an imaging study (e.g. X-ray, MRI) and then often be referred to a physiotherapist. At some point in follow up, if the patient is still deteriorating, an orthopaedic surgeon will put the patient on his or her surgical list. At each step in the process, the patient may face months of waiting. Multi-step services such as these can be subject to repeated delays.

When dealing with long waits for several linked services, the first step is to map the whole course of care and evaluate the results. Sometimes, this process will immediately suggest re-design possibilities such as eliminating unnecessary steps, streamlining the number of steps or combining multiple steps.

The use of registries

Earlier in this chapter, in the discussion of best practices and efficiencies, I mentioned the importance of information technology in reducing wait times. Technology plays a key role in many of the queue management techniques as well. Registries, as part of electronic information systems, are essential for better queue management. They have the added benefit of providing valuable data that can be used to evaluate outcomes. At present there is little data collected on patients prior to or after medical procedures. The data collected through registries can be a useful tool for analysis. It has been suggested that the following data be included in wait list registries:

- timeline information, including but not limited to original request for consultation with family physician, first appointment with specialist, time of decision about treatment, exit from queue without service, time of service provision, follow up appointments;
- clinical presentation;
- symptom changes over time;

- co-morbidities;
- reason for delays in care;
- reason for leaving queue; and
- outcomes, including mortality, morbidity and quality of life.

3.6 Provincial wait time champions

There is a need to support clinical leaders as they inspire change within our health care systems. In provinces where governments and health departments have placed leadership and accountability squarely with respected clinical leaders, progress has been significant and visible.

I have described in this chapter many elements of the administration of care that require change, each of these contributing to transformation in one domain or another. The responsibility for the planning and management of these changes must be given to a leader who has interest and expertise in this field, management skill, proven clinical knowledge and the confidence of peers. This is no small expectation. It is clear to me that these individuals exist across provincial jurisdictions and that they can be recruited to assume the leadership that this change process requires.

Such leaders can play a role within their own jurisdictions and nationally as well. In all of these areas of innovation and process improvement, leaders rely on other leaders with whom to share best practices, experiments and ideas. We know already that provinces are conducting their own change processes and that from these efforts many outstanding innovations have been put into place. In order to ensure that this process of change continues and that all provinces are able to share in and learn from the best practices of others, I support the creation of a network of provincial wait time leaders. Governments should identify the necessary resources to develop this network and support it with resources sufficient to address provincial needs and interprovincial collaboration. The development of this network will increase the chance that work will be undertaken with experience and vigour and that the knowledge that is acquired in one jurisdiction can be put to good use in another.

3.7 Navigating the health care system

Difficulties encountered by patients and their families while navigating through complex health care systems are well documented by the media and by various health care analysts. There are countless stories of patients who have either been lost “in a black hole” while waiting for treatment or have had difficult experiences due to inefficiencies within the system. These issues range from minor glitches, easily rectified with a phone call, to major inefficiencies that need to be identified and corrected through root cause analysis. A new staff function called wait time coordinator, navigator or advocate has emerged to assist patients in progressing through treatment processes.

Aside from the benefits to patients and families, navigators can also assist health care providers. In Nova Scotia, oncologists rely upon the navigators to coordinate care. Family doctors and health care centres have come to depend upon their clinical knowledge of the structure and function of the cancer treatment system. The navigator keeps in touch with the family physician’s office during the diagnostic work to ensure that appropriate referrals are being made for further diagnostic tests and

specialists consultations. In addition, navigators coordinate with surgeons' offices to ensure that referrals are being made for radiotherapy and chemotherapy, if required.

Navigators or case managers²⁹ are empowered to challenge the system. Navigators can do more than assist individual patients to solve isolated problems. They can be linked to a quality improvement process that ensures their knowledge about system inefficiencies is passed on to others.

Clarifying the Roles

There are a number of different approaches to addressing the navigator, advocate or wait time coordinator roles but a common factor is the focus on patient-centred care. Job functions can be similar but activities may begin or end at various stages in patient care. It is possible for the same individual to function as both a wait time coordinator and navigator/advocate.

A *wait time coordinator* is typically assigned to a patient upon booking of a treatment and communicates with that patient until the commencement of the service.³⁰ The wait time coordinator is a designated position within an organization or care network with functions involving case management for a specific group of individuals during the time they are waiting for care (either surgical or diagnostic such as an MRI/CT scan).

A *patient navigator/advocate (system navigator)* involves providing assistance to patients once they have already entered the system (i.e. during a hospital stay). The navigator typically will guide the patient through the system or act as an advocate to speak on their behalf when they may be unable to speak for themselves. System navigators tend to be embedded within other types of case management or coordinator models.³¹

The roles of wait time coordinators, navigators or advocates have the potential to not only provide assistance to the patient (and family) but to include a responsibility to improve patient flow by identifying and reporting on bottlenecks or inefficiencies.

3.8 Training health care professionals

A culture of change is necessary if we are to succeed in transforming health care systems. It is necessary to train professionals currently working within our health care systems in techniques that will improve flows and shorten wait times. Process improvements are still taking hold in our systems. We need to invest in training to build a community of support and expertise at both individual and organizational levels. The Canadian Health Services Research Foundation (CHSRF) has prepared such an education program known as "Shorter Waits and Improved Flows Training Program".³² The program provides training through a combination of on-site, sequestered training; web-based learning;

²⁹ These terms are often used interchangeably along with others such as case coordinator, cancer support nurse, follow up nurse and cancer coordinator.

³⁰ The wait time period used for the purpose of this document is based on the definition approved by Federal/ Provincial Territorial Health Ministers and presented to the public on December 12, 2005 in the announcement on benchmarks.

³¹ Jamieson, Wanda. *Patient Navigation within the Health Care Sector*. JHG Consulting. 2006; 25

³² Report I: Canadian Health Services Research Foundation (CHSRF), *Shorter Wait and Improved Flows Training Program (SWIFT)*.

at-home instruction and an annual face-to-face meeting of fellows and graduates. An ongoing network will continue to support graduates. The program would target clinical leaders, managers, nurse executives, administrators and others who play critical roles in time sensitive clinical care and could be offered in both official languages.

3.9 Conclusion

There are many challenges associated with reducing waits and improving access to health care in Canada. Examples from across the country and around the world demonstrate that it is possible to dramatically reduce waits. Canadians could potentially have same day access to primary health care, one or two week access for appointments with medical specialists, and almost no waiting for tests and surgeries.

Chapter 3: Management and Innovations in Health Care Systems Recommendations

4. A national network of wait time champions (one per province) be established to lead the development and promulgation of best practices throughout provincial health systems;
5. As an extension of the foregoing recommendation, that provincial capacity for wait time coordination in health regions and major institutions be established;
6. That the Canadian Health Services Research Foundation should develop and implement a continuing, multidisciplinary educational program for health care professionals, for the purpose of developing wait list management leadership and skills and for a period of time that equips existing health care professionals to adopt business and industrial practices; and,
7. That provinces and territories adopt best practices for wait times including:
 - the use of single common waiting lists;
 - an approach that permits patients to be referred to a speciality service that prioritizes the patient by acuity and offers the first available slot for intervention;
 - the use of queuing theories to alter current processes;
 - innovative case management;
 - team based care;
 - appropriateness; and
 - pre-habilitation programs to ensure fitness for surgery.

Chapter 4: Information Technology (IT)

The development and implementation of information and communication technologies have become key to ensuring quality health care. In health care systems the importance of technology is in its ability to allow health care providers to share crucial patient information easily and accurately. “Accurate information is crucial if patients are to have choice and receive the right care at the right time... to give healthcare professionals access to patient information safely, securely and easily whenever and wherever it is needed.”³³ In order to provide patients and professionals with the right information at the right place, at the right time, the federal, provincial and territorial governments, through Canada Health Infoway, are working together to establish a pan-Canadian health info-structure that will make information readily accessible to those who need it.

As discussed in Chapter 3, new business practices and system innovations have the potential to have a huge impact when applied to health care systems. “Health care has often been described as the last industry to be revolutionized by Information Technology and Information Management initiatives.”³⁴ The increased use of technology can serve to improve service in hospitals, clinics and at home through the use of tools such as: computerized patient registries, interconnected databases for drugs, diagnostic testing results and electronic health records, all of which allow patients and care givers in the health sector to have access to necessary information.

The goal of this chapter is to discuss and recommend IT solutions to improve timely access to health care. Specific IT tools and next steps that are being developed with the help of Canada Health Infoway are also described. These are, in my view, necessary investments in the transformation of health care systems in Canada.

4.1 Current state of the health info-structure in Canada

In September 2000 the First Ministers agreed “to work together to strengthen a Canada-wide health info-structure to improve quality, access and timeliness of health care for Canadians.”³⁵ As a result, Canada Health Infoway was established in 2001 to achieve the “desired future state of information technology for the Canadian health care system.”³⁶ As of 2004-2005, and since Infoway’s inception in 2001, there have been 105 Infoway projects launched in all investment areas (infostructure, registries, diagnostic imaging, drug info systems, lab info systems, telehealth, health surveillance, interoperable electronic health record, innovation and adoption).³⁷

³³ Department of Health, *Putting People at the Heart of Public Services: The NHS Improvement Plan*. (Government of England: London, 2004), p.68

³⁴ Task Force Two, *A Physician Human Resource Strategy for Canada*, p. 1.

³⁵ Med-Emerg Inc., *Discussion Paper on Infrastructure and Technology for “A Physician Human Resource Strategy in Canada: Task Force Two”*, September 21, 2005.

³⁶ Ibid.

³⁷ Canada Health Infoway

The term health info-structure refers to:

... the development and adoption of modern systems of information and communications technologies (ICTs) in the Canadian health care system which would allow the people of Canada (the general public, patients and caregivers, as well as health care providers, health managers, health policymakers and health researchers) to make informed decisions about their own health, the health of others, and Canada's health system.³⁸

An info-structure is the combination of technological tools and information provided by patients and practitioners that forms a base of knowledge which informs decisions made by all participants in the health care system. The ongoing development and use of this information structure will benefit the health system as a whole and provide an important set of tools to resolve wait time issues.

Each province is at a different place in the implementation of its information technology agenda, but there are visible common features developing:

- regionalization;
- creation of electronic health records;
- digitizing the process for collecting patient data in both hospital and non-hospital settings;
- automation of physician offices and placing the patient at the centre of care.
- in some jurisdictions, ensuring that all physicians have computer systems that are compatible with the provincial electronic health record; and
- in others concentrating on the establishment of registries and other overarching systems.

4.2 Health care professional scenario

In order to illustrate the importance of information technology and how it can play a role in improving wait times, Canada Health Infoway has described the scenario of Betty Smith³⁹ who, over the space of thirteen months, journeys from her first appointment with her family physician to the date of the surgery to address her hip pain. The scenario shows how, at each of the phases in Betty's care, information management and technology are critical to providing accurate and current details on Betty's status. It is not hard to imagine how Betty experiences her journey or to understand what doubts she may have with respect to the right information getting to the right person or place in the shortest time possible.

The same concerns exist for health care professionals involved in patient care. A family physician may see a patient, perhaps several times, adding notes at each visit to the hand-written and hand-filed patient chart in his/her neighbourhood office. Diagnostic tests are ordered and a receptionist makes appointments. The test results that are mailed or faxed back to the physician's office may be the only

³⁸ Health Canada, "Health Care System: Canada's Health Infostructure" found at http://www.hc-sc.gc.ca/hcs-sss/ehealth-esante/infostructure/index_e.html on March 27, 2006.

³⁹ Canada Health Infoway, *Addressing Wait Times with Information Technology*, p. 14-15.

indication that the patient did indeed go for the tests. Test results are manually recorded on the test requisition and sent by mail, courier and sometimes by fax to the physician's office where they may linger in in-baskets or file folders until a physician has had a chance to review them and take further action.

Similarly, the physician's referral of the patient to a specialist will be booked by phone from one receptionist to another. The family physician may dictate or draft a letter that is typed and sent by mail or fax. The vast majority of physicians do not use email communication in their practice. Delays can and do occur; phone calls may not be made until the following morning or may not be returned for a day or two. The results of diagnostic tests or consultations can travel back to the family physician at a slow pace or can be lost or delayed along the way. As the patient engages with one or more specialists, the family physician may become disconnected entirely from the patient's care and receive the specialist's written report much later. Throughout this time the family physician is attending to others with unique needs and circumstances. The exchange of information from one person and place to another may be trusted to many people using many communication methods that are paper-based and susceptible to error or inefficiency.

4.3 Current issues in Information Technology

Hospital Care vs. Physician Offices

Across Canada, provinces are engaging in agreements and initiatives related to implementing technological solutions in the health care system. These efforts have addressed needs in both acute care and community care. Currently, the registries and databases that have been established for diagnostic images, pharmaceuticals and waiting lists are primarily available in acute care settings. However, physicians in their private practices also need to be connected to this system to enable the family or general physician to remain engaged in and contribute to specialist care.

Connectivity

Professionals in both acute care (usually in secondary and tertiary hospitals) and primary care settings need the ability to access health information regarding their patients. Provinces and territories together with Canada Health Infoway are attempting to address this need with the development and implementation of the electronic medical record (EMR). It must be noted that an electronic medical record is the record kept within a doctor's office that documents all tests ordered, results received, drugs prescribed, office visits and other individual information specific to that doctor. Developing this capacity simultaneously will guarantee that no data gap is created and that providers in the health care system will use patient information to add efficiency to continuums of care.

According to the report on Health Human Resources from Task Force Two, physicians treating a patient tend to use technology primarily for administrative rather than clinical functions.⁴⁰ The Canadian Medical Association (CMA) has suggested that while physician use of technology is higher

⁴⁰ Task Force Two (started in 2003) is a joint effort between governments and professionals organizations dedicated to developing a pan-Canadian strategy for Health Human Resources. This is a follow up to Task Force One (initiated in 1998 by the Canadian Medical Forum), which examined the issue of physician shortage in Canada.

than many might expect, EMRs are not used to full advantage in Canada.⁴¹ Only 14% of practising Canadian physicians are currently using EMRs and only 3% of these users rely on them exclusively for patient information. Patient records continue to exist predominantly on paper and it is suggested that this will continue until “all providers adopt interoperable data systems that communicate with, and contribute to, a regional EHR.”⁴² The electronic health record (EHR) is a system-wide record of an individual’s procedures, doctor visits, medical care that relate to all physician contacts, hospital stays, and other activities within the provincial health system.

Informed consent

The issue of informed consent for the collection and storage of patient information has to be addressed while the EHR develops. Advances in information management and technology allow doctors and patients to be more informed about the patient’s health history, current treatments and progression of diseases or conditions. This also ensures that patients are able to obtain necessary information to make choices about their health care and self-care.

Ensuring both patient and physician have a complete set of data allows them to make fully informed decisions and choices regarding treatment of the patient’s condition. With this increased knowledge and understanding, a patient will be able to give his/her informed consent to treatment decisions or preventative measures suggested by their physician, which in turn will have direct impact on their health outcomes.

Privacy

Health information privacy is an important issue in wait time management — one that involves identifiable health information. An electronic health info-structure supports the health information privacy legislation already in place across Canada (e.g. different rules for managing consent). The wait time management solution would provide a foundation to this info-structure, rather than reinventing the wheel.

4.4 Technology tools

The adoption of e-health systems is a high priority in all health care jurisdictions. For each jurisdiction the main question that needs to be addressed is: How do we expedite a province-wide e-health system? IT offers solutions that support the infrastructures of systems using IT tools as the piers. An inventory of some, but not all, essential tools follows:

Tele-health

Tele-health initiatives are a feature of the e-health⁴³ framework currently being implemented across Canada. Tele-health is defined as the delivery of health related services and information via

⁴¹ CMA Report

⁴² Task Force Two, p. 11.

⁴³ The Journal of Medical Internet Research has defined E-health as “an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the

telecommunications technologies.⁴⁴ Clinical uses of telehealth technologies refers to:

- transmission of medical images for diagnosis;
- groups or individuals exchanging health services or education live via videoconference;
- transmission of medical data for diagnosis or disease management; and
- health advice by telephone.

Non-clinical uses of tele-health technologies include:

- distance education, including continuing medical education, grand rounds and patient education;
- administrative uses, including meetings among telehealth networks, supervision and presentations; and
- research.

Electronic Medical Record (EMR)

As discussed above, the EMR currently exists in some computerized clinics and physician offices. These records are similar to the EHR but have a smaller scope defined by the physician's involvement with the patient. An EMR can help inform and be linked to the EHR to provide more extensive information to the individual provider and patient.

Electronic Health Record (EHR)

One of the key tools for e-health implementation is the electronic health record. The EHR is designed to facilitate the sharing of data across the continuum of care, across health care delivery organizations and across geographies. This electronic file establishes a private and secure record of all episodic and historic care received within the system. The record is available anywhere, anytime, to health care providers and patients in order to support access to care as required. An EHR is also an important means of reducing preventable medical errors by guaranteeing the practitioner has all the information available at the time of decision-making and increasing patient safety by providing quick access to this information.

In general, and to summarize, the benefits of an EHR in the health system are:

- increased access to integrated patient information;
- reduced duplicate tests and prescriptions;
- reduced physician prescription call backs;
- reduced patient and provider travel costs;
- improved vaccine management; and
- improved information management resulting in reduced costs.

Internet and related technologies. In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology.”

⁴⁴ Definition of tele-health obtained from Wikipedia: <http://en.wikipedia.org/wiki/Telehealth>

Electronic health records can play a significant role in reducing wait times. “In essence, an EHR will increase productivity through efficiencies and care coordination at a level that is difficult, if not impossible, to achieve without technology.”⁴⁵

Electronic health records are not used solely within a physician’s office. Hospitals can contribute to and use the information that is within EHRs. However, as CMA has pointed out: “only 25 percent of Canada’s hospitals have been able to afford electronic provider order entry for pharmaceuticals, only 15 percent currently have electronic systems for managing diagnostic images, and only 36 percent currently use electronic records.”⁴⁶

Registries

Increasingly health care providers are moving from paper-based to electronic media to store pertinent information on patients in databases that are constructed to allow in-depth analyses of the information they contain. These databases are known as wait list registries⁴⁷ and provide valuable information to both patients and providers. This patient data will help determine the urgency of and other pertinent details related to the patient’s care. A wait list registry is essentially a list of patients waiting for a specific medical procedure or intervention. These types of lists have generally been paper based but this has limited the ability of care providers to analyze or compare information that has been collected. “Traditional paper-based recording and storage systems have long since ceased to support the health service in an efficient and effective manner. As a result, many general practice surgeries and hospitals now have some form of personal care record that can be shared internally.”⁴⁸ The ability to share information both internally *and* externally is an important advancement in technology.

Wait Time Websites⁴⁹

Many provinces, in an effort to provide more information to patients and providers have established wait time websites.⁵⁰ These web pages provide varying levels of detail on the length of wait lists for different surgeries and procedures ranging from cardiac surgery to cancer radiotherapy.

Some of the wait time websites offer a wider range of information, including the average wait time for specific surgeries and procedures on a province-wide basis. Some sites provide outcomes data on individual surgeons that allow patients to compare their particular physician to others in the provinces. This information makes it possible for a patient to request another location or another physician in order to shorten their waiting time.

⁴⁵ Dr. Mark Dermer, Dr. Bob Burns and Catarina Versaevel, *End User Acceptance Strategy*, February 1, 2006 presentation to the Canadian Medical Association, Ottawa, Ontario.

⁴⁶ TkMC, 2005

⁴⁷ Global Tiger Systems Solutions Inc., *Surgical Waiting List Registries and Waiting List Initiatives in Canada*. Prepared for Acute Care and Technology Unit, Quality Care, Technology and Pharmaceuticals Division, Health Care Policy and Communications Branch, Health Canada, November 18, 2005, p. 3.

⁴⁸ Department of Health, *Putting People at the Heart of Public Services: The NHS Improvement Plan*, (Government of England: London, 2004), p. 68.

⁴⁹ National Health Council, *Background on Wait Times* (2005). Appendix D: Provincial Wait Time Websites

⁵⁰ Refer to Appendix D: Provincial Wait Time Websites

4.5 Canada Health Infoway

Canada Health Infoway Inc. is an independent not-for-profit organization that works in partnership with the public sector. Its role is to invest in, implement and reuse compatible health information systems that support a safer, more efficient health care system. Members include Canada's 14 federal, provincial and territorial governments and the board consists of all the Ministers of Health. To date Infoway Inc has funded over one hundred projects that have either been completed or are underway in all jurisdictions. These activities are "delivering electronic health solutions to Canadians – solutions that bring tangible value to patients, providers and the health care system."⁵¹

To date Infoway has received \$1.2 billion for the development of health information systems including EHRs, tele-health and public health surveillance systems. As of March 31, 2005, Infoway had approved \$321 million in project investments. It expects to approve an additional \$325 million in 2005-2006, which would result in an estimated cumulative \$646 million in approved projects.

Infoway's ongoing mission is the development of an e-health info-structure across Canada. This will make patient information more readily accessible and put it in the right place at the right time for the benefit of patients and appropriate professionals.

Canada Health Infoway Analysis on Wait Times Solutions

In order to fully understand the implications of implementing a Canada wide system for efficient management of wait times, I asked Canada Health Infoway to conduct an analysis of the current state of technology in the Canadian health care system. Their analysis is included with this report (Report 2: Canada Health Infoway: *Addressing Wait Times with Information Technology*).

Wait time initiatives in Canada have varied from web-based reporting of wait times in selected surgical and diagnostic procedures to more focused investments that will increase capacity and redesign health system processes. Information and communication technologies have demonstrated their value in many of Infoway's efforts to date and will increasingly become crucial to supporting clinicians in providing timely and equitable access to quality health care for Canadians.

The use of information and communication technologies will result in the following benefits in the areas of access, quality and productivity:

Access

- **support timely delivery of care** – solutions to improve referral and scheduling processes and overall case management will help providers decrease the overall time between identification of need and treatment; and
- **support equitable distribution of care** – solutions for prioritization of resource usage will help ensure that care is delivered appropriately on the basis of need.

⁵¹ Canada Health Infoway, *Canada Health Infoway Inc. Corporate Business Plan 2005-2006, Building on Our Successes*. Toronto: Canada Health Infoway Inc., 2005.

Quality

- **improve appropriateness of care** – standardized assessment and wait time prioritization will help providers ensure that the wait time is appropriate for the patient; and
- **improve effectiveness of care** – more timely access to physicians, specialists, diagnostic tests, surgical procedures, as well as after care services, will provide for improved health outcomes and reduced pressure on the system.

Productivity

- **improve provider productivity** – information technology will impact provider productivity in many ways, from ease of access to information to improved efficiencies (e.g. reduced call backs, reduced duplicate tests);
- **more efficient resource use** – solutions for scheduling will help managers optimize the use of scarce human and physical resources; and
- **improve coordination of care** – case management will allow a virtual team of providers to more easily coordinate the successful completion of a patient's treatment plan.

In order to better manage wait times an investment in referral management, scheduling, case management, wait time monitoring and reporting systems, location registry, physician electronic medical records and patient portal technologies is needed.

Technology costs will continue to increase over time. Delays in the implementation of health care IT solutions must be avoided. Future IT systems will build on existing work Infoway or government funded projects that have already taken place across Canada. The estimated time frame for implementation of the proposed systems associated with wait time management is three to six years. I propose that federal, provincial and territorial governments continue to work on both pan-Canadian and provincial information technology and management initiatives in order to take full advantage of the benefits that will accrue from this technology. Failing to do so will put patient care and our health care systems at risk.

4.6 Conclusion

An electronic health record infrastructure is a fundamental tool for the future development of wait time management tools. The wait time systems under development within the provinces and territories mark the beginning but could benefit from the functionality that Infoway is proposing. Canada Health Infoway's analysis shows the way to achieve a Canada-wide, interoperable electronic health record by 2009. In addition, the recommended wait time management technology can be implemented alongside the EHR so that when the wait time management systems are ready to come online, data will be available to support them. While it takes time for the adoption of technology solutions both systemically and by the end users, all jurisdictions need to push forward to ensure that delays are minimized. The sooner this technology is widely in use, the sooner we will see better management of wait lists and patient care in general.

Chapter 4: Information Technology (IT) Recommendations

8. That the federal, provincial and territorial governments accelerate the pace of pan-Canadian health information technology through Canada Health Infoway;
9. That Canada Health Infoway:
 - Develop wait time tools as proposed;
 - Continue the development of the Electronic Health Record with a plan and timeline supported by FPT governments; and
10. That the development of IT health information systems in Canada be accompanied by public education to assure Canadians that privacy of information is secured.

Chapter 5: Professional Roles and Responsibilities

In the foregoing chapters I have made a number of recommendations on how to substantially improve wait times in health care systems. The recommendations so far have fallen into two major categories. First is the research that will help us to understand the effect of benchmarks and their utility in health care systems. Health systems research will permit us to continuously improve our ability to move patients smoothly through the health care system. Second are the management techniques and innovations, including information technology, that will sort out lingering system problems that we have inherited from generations of clinical and managerial predecessors.

I believe that the problem of wait times is a problem not just of “being made to wait” or “making someone wait”. It is a problem of the focus of the system and the processes and machinery that support it. Over many years our health care systems have been pushed and pulled to accommodate many different goals, interests, and needs of professionals and administrators. The issues associated with wait times can be addressed if we are able to refocus the system to put the patient at the centre of our attention and problem solving.

The issue of wait times is a systemic problem that requires a systemic solution. Moreover, specific measures that make up this solution must be supported by a general cultural shift within the health system and among professionals. Without a movement that changes attitudes, assumptions and patterns of behaviour of the leaders, managers and providers of care, concrete measures are unlikely to succeed.

The discussion in this chapter will centre around the role and responsibility of health care professionals, illustrated largely through a discussion of the roles of physicians in our current health care systems. Much of what I will say reflects my own experience in medicine, my experience of working in and later leading health care delivery institutions of various sizes, and more recently my discussions with fellow administrators, physicians and provincial and territorial colleagues.

With respect to the issue of wait times it is important to note that physicians, regardless of their area of practice, represent only one set of many different health care professionals involved in the totality of health care. Other groups, including but not limited to nurses, health care aides, technicians of many disciplines, administrators and managers, and increasingly social workers and therapists, all play important roles in the continuum of modern health care. These professionals organize and deliver care across facilities, in and out of acute care and in the home, in private offices and in community settings. All of us would be hard pressed to decide which member of the health care team could be eliminated without the team and patient losing out in some way.

5.1 The unique role of physicians in health care systems

Canadians for the most part feel that as patients, or as the family or friends of patients, they can be justifiably grateful to physicians and surgeons, family practice doctors, specialists and medical researchers, for the commitment and caring that these professionals demonstrate to their patients. Many Canadians will likely be able to recount an instance in which he or she, a child or parent,

received a physician's careful attention, guidance through a medical problem or the maze of medical infrastructure, to benefit from an intervention or support that our health system affords Canadians. I believe that most Canadians feel this way, as do I. I have had the opportunity to witness this sentiment expressed frequently and I share with my colleagues the pride of esteem with which physicians are held in Canada.

All health care professionals have roles and responsibilities that are unique to their own profession. What makes physicians and surgeons unique, and therefore important to address directly, is the degree of influence that they are able to exercise over health care systems. This is either as a consequence of their ability to control systems of care (processes, organization and efficiencies) or to shape them through collective strength, individual participation and cooperation, or lack thereof. It is also a consequence of their relative independence. Other professionals or care providers are employees of the system or contracted to the system, while physicians are most often self-employed, may work in an entrepreneurial model and are most often paid on a fee-for-service basis.

Physicians as the “Gatekeepers”

Physicians are known as the “gatekeepers” of patients and patient care. This is a feature both of the traditions of medical care prior to the development of large health care systems and of institutional processes and administration that have traditionally centred on the role of physicians as the decision-maker. As gatekeepers, physicians have the ability to direct patient care and advance a patient to the next step of care. It is the physician who determines whether diagnostics are to be undertaken, prescriptions provided, medical and surgical interventions performed, and so forth. Additionally, physicians have autonomy as independent professionals to assign their time commitments and organize their practices.

Most physicians receive public money according to a schedule negotiated by provincial governments with provincial medical associations. Although there has been some change in the employment status profile of physicians over the last several decades, with physician's increasingly choosing salary-based roles (in a parallel stream in which funding allocations accrue to regional health authorities, hospitals or clinics), the fee-for-service arrangement remains predominant. Additionally, physician institutions, medical associations and specialist societies continue to reflect the autonomous organization of physician functions. Medical associations often reflect the values of independent business and clinical autonomy in exclusive relationship with the patients. Most physicians do not “work for the hospital”. Most do not have a contractual or business arrangement in place with that institution that describes the responsibility of the physician and the facility. The relationship of the physician to the institution is defined typically by medical staff by-laws, which reflect the “rules of engagement” for physician functions within an RHA or hospital. There is seldom an agreement that binds practitioners to a prescribed level of service of volume, quality or efficiency. There is for most physicians and specialists in private practice no obligation to participate in change processes at the level of the facility or to cooperate with the procedural changes that others have adopted.

Because of their autonomy and their role in directing patient care, physicians are in a powerful position to support or resist system change. It is imperative that physicians are engaged effectively in system transformations that will support improved patient access to care.

In many provinces and health care institutions physicians are already contributing to great change processes with the issue of wait times central to their efforts. There is not a province that has made substantial progress on wait times without clinical leaders championing improved standards of care, greater efficiencies and the meaningful involvement of physicians that care. These clinical leaders cannot, however, accomplish these changes on their own, and cannot ensure that the efforts will endure without systemic supports around them. It has been my experience that the forces of change are seldom as strong as the forces against change. All participants in the health care system have a duty to promote system change that contributes to quality care.

5.2 Physician institutions

Physician organizations and professional regulatory bodies frequently provide representation in health system change processes by participating in local, regional, provincial and national discussions. Medical associations represent the goals, desires and interests of their physician membership. Provincial institutions such as Colleges of Physicians and Surgeons, which exist as a result of provincial legislation, protect the interest of the public with respect to licensing, medical practice standard setting and discipline. Colleges seldom participate in proactive consultation associated with system change and frequently find themselves exercising their legislated roles in reaction to system change that has been undertaken without their advice.

There also exists a community of professional interest, associated with the education and training of physicians, from undergraduate to specialty and sub-specialty education. This community of interest is intertwined with academic medical centres and a cadre of clinical researchers, health scientists and teachers. Medical educators and researchers bring a different perspective to the design and analysis of health care systems.

The system changes that I am proposing have the potential to improve efficiency throughout the health care system. This is especially true as it relates to the recommendations of the preceding chapter regarding the importance and impact of information technology in the health care system. The planning of the changes, the process that supports the changes and ensures that they address the needs that exist, should rely on advice from the medical community. Not only is it necessary and desirable to hear from the associations directed by physicians at large, it is necessary to hear from physician communities that are responsible for the professional conduct of physicians and their education.

5.3 Professional standards to support change

The words “system transformation” are purposefully expansive. The changes proposed throughout this final report are not only necessary but must be implemented urgently and pervasively. These changes will require careful planning, careful execution, and the cooperation and participation of many health care professionals, including but not limited to: physicians, nurses, statisticians, administrators and managers. Success will depend on ensuring that clinicians adopt new roles and responsibilities. The issue of wait times is urgent and the urgency requires that new standards of professional behaviour be developed and sustained in the long term. Expected changes in practice

patterns will require the development and implementation of standards of professional conduct to be monitored and promulgated through Colleges of Physicians and Surgeons.

5.4 Educational efforts to perpetuate change

Canada's capacity for medical education is tested by many new factors that emerge on a daily basis. New demands include new conditions, changing demographics, new technology and the new expectations of students. As well public and political expectations are changing and are reflected through the media, often in a negative way. All medical schools in Canada have recently expanded medical class size to increase the number of graduating students and concomitant family physician and specialty training programs. As a result, health care systems in Canada, including educational infrastructure, must ensure that medical education incorporates emphasis on the program goals and societal values that accompany this requirement. Timely access, efficient, high quality care and fairness must be intrinsic in our delivery systems. Physicians graduating from Canadian medical schools should expect and respect the system-wide standards that Canadians support and which leaders, practitioners and employees of their health care systems can be expected to implement.

5.5 Issues of competency

The physician-patient relationship is important to physicians and patients alike. For many it is paramount in their experience of health care – an important foundation for understanding and trust.

There is already considerable variation in the physician patient relationship. Anaesthetists typically see patients only in pre-operative and operative settings and radiologists are normally service-based, working either in hospital or clinic settings. In many specialty programs such as cancer care, cardiac surgery and neurosurgery physician assignments are made to patients at the point of system entry. This is referred to as service-based care. In these clinics physicians work as equal team members and provide services collaboratively.

It may be that the implementation of “service based care” and “first available slot” will result in a patient receiving surgery from a surgeon that he/she sees only in the context of that surgery. Patients need to have the confidence that whatever physician provides their care is of unquestionable competency. It is therefore incumbent on medical schools that Colleges of Physicians and Surgeons in each province, Regional Health Authorities and hospitals ensure that standards of medical education, practice and professional oversight are sufficient to guarantee that care will be undertaken by capable and competent practitioners in every instance in which care is provided.

5.6 Definition of roles

The issue of definition of professional roles has been addressed in Chapter 3. It remains in this section of the report only to emphasize that the development of professional scopes of practice, and the definition of skills and training required to assume professional responsibility, require a long and exacting effort. Professional roles and all of their accoutrements: education, licensing, regulation,

competency testing, labour regulations, pay schedules and transferability, contribute to organization and to patient safety. At the same time they have the ability to create turf wars and professional stovepipes that can impede change or stifle innovation.

One means of ensuring enhanced access is to ensure that all professionals are functioning to their full scope of practice. This would ultimately free up resources at several levels that could focus on the issues of wait list management through volume increases and innovation.

5.7 Conclusion

Many of the changes that are proposed in this report have the potential to dramatically change the way we as Canadians and patients experience medical care. The recommendations not only have the ability to reduce the time that patients can expect to wait for medically necessary care but also the relationships experienced throughout the process.

Chapter 5: Professional Roles and Responsibilities Recommendations

11. That FPT governments develop a broad base for receiving advice from medical communities with respect to change in the health system and long term planning. The Canadian Medical Forum can be asked to assume this role nationally, with provinces and territories developing similar capacities locally to achieve balanced influence when medical input is deemed important;
12. That provincial Colleges of Physicians and Surgeons establish professional and ethical standards and the means to monitor professional practice with respect to physician management of wait times in provincial health care systems. The Federation of Regulatory Authorities of Canada should coordinate this effort;
13. That faculties of medicine of Canadian universities develop curricula that support changing health care systems and changing expectations regarding the competencies that physicians will require to participate in these systems led by The Association of Medical Faculties of Canada; and
14. That FPT work on health human resources initiatives focus on re-defining professional clinical roles to enable health care professionals to work at their full potential and to offer innovations in health care, which are economical and sustainable.

Chapter 6: Additional Issues

Early in the discussion regarding wait times in Canada it became clear that there were several specific issues that required attention and that were not formally a part of my mandate. Each issue has implications for understanding wait times and each issue has significance for health care systems in general. I am addressing these issues as a part of this final report both to recognize the work that others have done on these subjects and also to encourage an FPT discussion such that these elements of analysis can be added to wait times discussions in Canada. These issues are:

- wait times for children
- surge capacity
- health human resources
- gender-based analysis
- Cinderella diseases
- other provincial priorities

A brief discussion of each of these items follows. Where specific work has been undertaken on the subject a report is appended. Various individuals and groups from across the country continue to address these issues. I want to thank them for their contribution to this report.

6.1 Children's wait times

Children's conditions were not identified in the First Ministers' *10-Year Plan to Strengthen Health Care*. Although it might be argued that the five priority areas identified by First Ministers do not explicitly exclude children and their conditions, it is widely accepted that the five areas address conditions most often associated with adults.

Experience shows that many Canadians will automatically assume that children receive care on a priority basis. While this may reflect our common sense or shared values, the fact is that children's hospitals and children's health care generally do not fare better than adult care with respect to financial resources. Additionally, the advocates for children's care are often parents whose time and attention is spent caring for the child. Addressing wait times for children's clinical and surgical interventions is therefore a moral responsibility – a trust responsibility – that needs to be shared by society at large. This report is an opportunity to ensure that Canadians understand that need.

In the fall of 2005, I discussed with the National Child and Youth Health Coalition (NCYHC) research that they were conducting on access targets for children's surgical procedures. The decision that resulted was that NCYHC would continue to develop access targets for key conditions using evidence available at the time.

Fortunately the work of NCYHC was sufficiently advanced that it was possible to proceed quickly to a broad consultation amongst clinical/surgical directors and managers of children's hospitals and health centres in Canada. Access targets were developed using Ontario's paediatric wait time

definitions as a model and as a basis for discussion and consensus. NCYHC's report summary and approximately 350 access targets in nine subspecialties are appended.⁵²

I would like to comment on this subject to increase the possibility that children's wait times will join the mainstream of the wait times discussion in Canada and, because of that, enjoy the same success.

Delays in scheduled care, or long waits for needed care, can present problems for adults and children alike. There is however a significant difference for children in that their growth and development is rapid. For some conditions the opportunity to intervene clinically or surgically is very brief – the window opens and closes quickly. To miss that opportunity is to miss getting the most from the procedure over time. Related to this are of course the social, educational and psychological effects associated with illness, hospitalization and the inability of the child to participate in the real work of growing up. The failure to progress with their cohort can affect a child's life for a long time.

I am hopeful that, having addressed this issue, FPT governments will draw the issue of children's wait times into their ongoing discussions. I commend the work of the NCYHC to your attention and trust that it will provide a good basis for discussion between provincial governments and their children's health centres.

6.2 Surge capacity

The issue of "surge capacity" has arisen frequently throughout the wait time discussions. All provinces plan for basic health care services for their citizens, covering the spectrum from primary health care services to, tertiary services. There are however times during which the local system will experience a surge of need or demand that will outstrip its capacity to manage pressing needs in a timely way. In situations such as these, there is the desire, and arguably a necessity, to establish a mechanism through which additional unused capacity, outside of the local region or outside of the province, can be utilized. Sometimes this surge capacity exists and sometimes it does not.

The need to address surge capacity is not new and it does not result solely from our current concern about wait times. Surge capacity has been an issue in Canada for many years. There have always been times or circumstances in which hospitals, regions or provinces have called on one another for help to address volumes of care or specific types of care.

Our ability to anticipate and quantify planned and unplanned health care needs will have to be developed. My intention here is to help define the terms and to illuminate the potential issues around surge capacity so that further study and/or collaboration with respect to this issue can advance.

The term "surge capacity" did not appear frequently in the health care vocabulary in Canada until the severe acute respiratory syndrome (SARS) event in Toronto, Ontario in 2001. Subsequent to the Report of the National Advisory Committee on SARS and Public Health (2003)⁵³ and the formation of

⁵² See Report 3: National Child and Youth Health Coalition: *National Paediatric Surgical Wait Times Strategy: Access Targets*

⁵³ Dr. David Naylor, Chair, *Learning from SARS: Renewal of Public Health*. A Report of the National Advisory Committee on SARS and Public Health. (Ottawa: October, 2003).

the Public Health Agency of Canada (PHAC), the term has become more commonplace, and is largely used to describe the capacity for frontline responses to emergencies, including the assembly of special teams from multiple program areas or jurisdictions. The term has also been used to describe the backup or back filling required for experts and clinicians who work on such activities as laboratory testing, data management and analysis, policy development, and emergency responsiveness and management.

Consider the hypothetical circumstance of a surge and an extraordinary volume of case types requiring access to the health care system. This could include a natural or manmade disaster, such as a storm or refinery explosion, respectively. Less dramatic circumstances might include an extra large number of cases moving through the system as a consequence of an unplanned event, e.g. flu season or multiple traumas during a prolonged period of inclement weather conditions. **Surges can also occur when human resources are not adequately available.** One of three surgeons retiring in a practice setting could well cause an increase in wait times until a replacement is recruited.

Contrary to unplanned events, surges in activity and demand may be a consequence of planned events, such as the need to increase the supply of services (such as cataract surgery to clear up backlogs of scheduled patients waiting for long periods). The urgency of a planned disturbance in activity level, or the perception of it, may be influenced by a wide variety of factors: clinical, economic and political, to name but a few.

An additional circumstance potentially exists in insufficient volumes of cases in a particular healthcare jurisdiction, prompting the concentration of care for such cases geographically and in juxtaposition to a region with greater capacity and expertise. This volume/quality relationship is well researched, particularly in high-tech and high-intensity services. In short, the more you do, the better you get at it. This stretches the definition and notion of surge capacity. Concentrating volumes of services of any type requires management and processes for the specialized centres, in order for the specialized capacity to be met.

There may be other imaginable surges which could include a “rush” for services brought on by the public, as a consequence of fear or hysteria, such as a surge of people seeking vaccination, or indeed any scenario when individuals in a planned or unplanned fashion place an unusual demand on the system for access. In every case, there are two central challenges:

- dealing with the surge in activity; and
- dealing with its short and long-term impact on the balance of the health care system.

This of course has a direct and measurable impact on provision of scheduled services and hence, waiting times.

Table 1 attempts to categorize surge into two broad categories of unplanned and planned service components.

Table 6.1: Surge Capacity

	Scope	Nature	Scaled Accountability
Unplanned Case Volumes	1.1 Disaster	Natural	Local; Provincial; environmental services; PHAC
		Man-Made	Local; Provincial; environmental services; PHAC; military services
	1.2 Non-Disaster (Converts to 1.1 depends on magnitude/intensity)	Infectious	Local and provincial health labs ± Public Health Laboratory (Winnipeg)
		Traumatic	Local; Provincial; multi-provincial
		Toxic	Local; Provincial; multi-provincial; environmental
		Public hysteria	Local, provincial ± PHAC
Planned Case Volumes	Provincial	Case backlogs	Local & Intra-provincial ± multi-provincial
	Multi-provincial (might assume by agreement)	Specialized interprovincial referral centres	Provincial/Multi-Provincial

For the purposes of this report, the following operational definition is offered: Surge capacity is the responsiveness of the health care system to absorb both planned and unplanned requirements of access. Whatever the cause of the surge, the issues and challenges of coping with additional requirements for access have implications for both patients and caregivers, as well as those affected as a consequence of the collateral impact of the surge.

Canadians have experience with organizing health services to address a need where volume is insufficient to warrant a specialized program of care. Western Canada's Child Cardiac Care Consortium was established to gain the advantages of higher volumes and collaborative practice between four western provinces and has been highly successful in terms of both clinical management and clinical outcomes.

Concentrating expertise and capacity such as this requires special and defined service agreements. Capacity to deal with planned activities and high-tech services stresses the system in different ways than does providing capacity for unplanned services, such as trauma. For a specialized referral centre to cope with volume, capacity must be built into the system in advance.

Examples of existing concentrated services in the provinces are contained in the following tables: Intraprovincial (Table 6.2) and interprovincial services (Table 6.3).

Table 6. 2: Concentrated Intra-provincial Services*

Kidney Transplantation
Trauma Services
Neuro-vascular and Cardiovascular Interventional Services
Selected Cancer Services (e.g. Radiotherapy)

*representative, not comprehensive

Table 6.3: Concentrated Inter-provincial Services*

Heart and Heart/Lung Transplantation
Paediatric Cardiovascular Surgery
Bone Marrow Transplantation
Extracorporeal Membrane Oxygenation for Low Birth Weight Infants
Hyperbaric oxygenation for anaerobic sepsis, carbon monoxide poisoning, and diving injuries

*representative, not comprehensive

The criteria that is best applied to the development of concentrated out-of-province services includes a combination of 1) a supply for high-tech or high-intensity services, with 2) some combination of demand for extremely expensive infrastructure and/or 3) highly qualified personnel. The benefit associated with concentration of provincial services is that there can be concentration of infrastructural costs, as well as qualified expertise in personnel, providing the additional benefits of an environment for better training and research. The downside of concentrating services is the impact on patients having to be moved, families separated from them or being required to travel.

Being responsible for service delivery requires provinces, through their health care regions and facilities, to provide access for both scheduled and emergency services. Inter-provincial/territorial agreements are essential when services are shared or concentrated.

In order to concentrate tertiary and quaternary referrals, there needs to be a sound database from which to determine the demand for services. With information derived from such a knowledge base, concentrated services would need to be organized in a fashion so as to achieve balance between the service rate and the arrival rate, or otherwise line-ups form, either at the specialized or the referral sites, or both. Simulation modelling is useful to accomplish the supply and demand match. The fuel for simulation modeling is data available through regional health authorities and the CIHI.

Census and demographic information required for long-term planning comes from Statistics Canada. Linkage of regional data and a variety of health-related survey data and instruments from Statistics Canada offers very active opportunities for new insights on population health and interventions.

Different kinds of surge capacity required across Canada require different approaches:

- For informed thinking and strategies in unplanned surge, we can learn from existing emergency and disaster demand approaches, for better coordination and integration of these services.

- For backlogs, attention must be given to adding interim and additional supply, while paying attention to creating and not altering supply and demand match necessary for steady-state conditions.
- In the case of specialized referral services, planned volume must be rationalized and form the basis of service agreements, with the receiving centres adding sufficient capacity so as not to compromise its regular activities and service volumes.
- For unplanned surges, standby capacity is a theoretical but costly and often impractical consideration. Multipurpose training offers some ability to cope. But, for both these surges and planned increases in activity much more use must be made of plans that incorporate industrial management techniques.

I urge federal, provincial and territorial governments to consider the potential of arrangements planned to address issues of surge capacity. There will be times and circumstances for which need and demand cannot be safely accommodated in a timely way and close to home at the same time. Our provincial and territorial health care services have developed different bodies of experience and expertise to address the needs of different populations with different health issues. This diverse capacity can be captured for the benefit of all Canadians.

Canadians would be well served by further investigation of this potential as a means to address planned or unplanned volumes of needs. All regions of Canada continue to experience shifts in need and capacity that are not yet managed. The ability for provinces and territories to look across the landscape of unmet need and to collaborate proactively will create a network of health systems that is more fail-safe. The “natural” regions of Canada (West, Atlantic, Quebec and Ontario) would be wise to collaborate to study their needs for clinical and/or surgical capacity and develop innovations to address as yet unmet need. The federal government could support this effort by investing in provincial efforts to define needs and the surge capacity that is required to address them. This initiative would lend itself easily to four regional pilot projects. There is of course a need for collaboration amongst the provinces and territories in one region but it would benefit Canadians as well if these four regions could take collaboration to the next level and plan for inter-regional synergy. While Canada’s Constitution provides for provinces to manage health care delivery systems within their own boundaries, it does not prevent them from together creating complementary capacities.

6.3 Health human resources

It is often said that people are the greatest asset of the Canadian health care system. The “people” in this case is an enormous volume of professionals, paraprofessionals, managers and policy makers who work in diverse environments and in complex systems. However regular reports show that the public and professionals are concerned about the sustainability of the health care workforce in Canada. Shortages of anaesthesiologists, family doctors, psychiatrists, nurses and other health care professionals cause concern for the public alongside sometimes significant delays in treatment.

Like other issues addressed in this chapter of my final report, health human resources (HHR) is not one of the issues that I was specifically mandated to address. The issues of HHR are significant. They relate to wait times and more. The scope of HHR management includes changes in the way health professions are perceived, the ability to recruit, new educational challenges, distribution, distribution

according to need, safety at the worksite and of course volume – the numbers of health care providers on the ground and their availability to work when we need them. The list is long.

It is important that health departments, health regions and the public are aware of the initiatives that are being undertaken across the country to address some of the issues of health human resources. Officials in Health Canada who are assigned to this task and who work with provinces to accomplish their mandate have prepared a report to describe current national collaborative initiatives. The report on the Pan-Canadian Health Human Resource Strategy can be found appended to this report.⁵⁴

6.4 Gender-based analysis

In health care, as in many other fields of social importance, our efforts to progress and do good work sometimes foreshorten the planning period. We find out in due course that the plans that we made and the solutions that we contrived have overlooked important considerations, the understanding of which would have made for a better plan, a better program or service.

This argument applies well to the policy tool of gender-based analysis (GBA). For a very long time we planned programs and developed care plans with no consideration of the difference between men and women, boys and girls. It is only really over the last couple of decades that consideration has been given to these issues and that our planning, evaluation and care processes have been urged to look at and understand these differences and their implications for health care systems and patient care.

The relevance of gender-based analysis is as important to the issues of wait times as it is to other issues of health care. Failure to understand differential outcomes on population groups is a failure to do the work well.

Gender-based analysis is more than counting the number of women and men, boys or girls that have received service to make sure that the number is about the same. It is about getting under the numbers, before and after programs are planned and implemented, to understand the effect, both of sex and social conditions that make unanalysed programs and unanalysed care sometimes miss the mark. GBA is an area of work that helps us to ensure that appropriate care of high quality is available to all men and women, boys and girls.

The processes to develop benchmarks, access targets and indicators related to wait times have been concerned primarily with the issues of how to increase the efficiency and effectiveness of the health care system to meet these goals. What has not been addressed in these discussions and research activities is the differential effect that disease, or indeed waiting for care, has on men and women.

In order to include this discussion in the final report, a partnership was struck with the Women and Health Care Reform Group who have agreed to allow their full report on the different impacts of wait times experienced by each gender to be appended. I hope that in this way Canadians can have a better understanding of gender-based analysis in a broad sense and how it can change the way in which

⁵⁴ See Report 4: Pan-Canadian Health Human Resource Strategy

issues in the health care system are examined. You will find the report of the Women and Health Care Reform Group in the appended reports.⁵⁵

6.5 Cinderella diseases

The term “Cinderella disease” has emerged in Canada around the issue of wait times. The term is an intuitive one and applies to the diseases that were not recognized, or “prioritized” in the five selected areas of concern for which benchmarks were to be developed. “Cinderella diseases” are the ones that *did not get invited to the ball*. Unlike the “big five” – (joint replacement, cardiac, cancer, sight restoration and diagnostic imaging) these conditions and diseases, though important, have not made it into the first “cut”. The fear is, and the danger is, that the five conditions that figured prominently in FMM agreements will starve out all others for attention, resources and technology, leaving Cinderella diseases behind, in the shadows, at least temporarily if not permanently. This concern has been raised both by the public and by health care professionals in an Ipsos Reid poll undertaken in fall of 2005 and which states that “2 in 3 (Canadians) are concerned that meeting the wait time benchmarks in the five priority areas will come at the expense of other health care services.”⁵⁶

I need to caution that in the daily business of health care a possibility always exists that either a real need is present or there is the perception of a need. Often there are claims, some correct, that insufficient attention is being paid to one condition or another, or that a particular condition could be treated more effectively if only another service, drug or facility were available. This is the reality that has caused health care systems in provinces to look to evidence to identify what the priorities are or should be, what interventions are actually effective and which are not, and what organized programs for a small population or for a large population can achieve the most benefit to individuals and society. We look to evidence to help clinicians and managers to make defendable decisions.

However the concern regarding “Cinderella diseases” is well taken. It is not appropriate for our health care systems to be so focused on limited areas that we neglect others. While it is important to dedicate resources to shorten wait times for procedures and interventions that are currently experiencing worrisome waits, it is also important to ensure that other diseases and conditions do not become the next areas to see wait times increase. Care must be taken to transform the system so that the efficiencies are experienced *across* our health care systems and not just within the five areas in which benchmarks have been set. Success for one area should not come at the expense of another.

The ongoing operational research (discussed in Chapter 2) that is being undertaken by CIHR would study the effect that benchmarks in specific areas have on other areas of the system. This research information can be used to influence and inform benchmarking and research processes.

⁵⁵ See Report 5: Women and Health Care Reform Group: *Gender Based Analysis and Wait Times Report: New Questions, New Knowledge*

⁵⁶ Ipsos Reid, *Canadian Views on Wait Time Benchmarks and Care Guarantees*. Presentation to the Canadian Medical Association, October 6, 2005.

6.6 Other provincial and territorial priorities

Canadians also need to be aware that the issue of wait times is important to different provinces and territories in different ways. Provinces, territories, regional health authorities and facilities are learning from one another about better business practices, improved use of technology and information systems. That learning will set new standards for efficiencies, appropriate wait times and satisfactory outcomes.

But apart from the forward-thinking work that provinces and territories are doing with respect to wait times, each province and territory has a unique set of program priorities that may not be affected by the wait time work at all. Many of these priorities will be identified annually in the provincial/territorial Speech from the Throne and then funded in provincial and territorial budgets. They range from intervention programs (crystal meth intervention might be a good example) to programs designed to address chronic conditions at various stages of their progress (diabetes would be a good example of a long term initiative). Provinces and territories in their own health care systems need to strike the right balance between the issues that draw public attention nationally and the issues that occupy the hearts and minds of citizens within the cities and towns of the provinces. The work performed by health care decision-makers presents unique challenges.

6.7 Conclusion

Although not expressly identified in my mandate, I am hopeful that these comments regarding additional issues will bring clarity or understanding to several issues that will remain with us as we forge ahead to address wait times in Canada.

Chapter 6: Additional Issues Recommendations

15. That provincial and territorial governments give consideration to the access targets developed by the National Youth and Child Health Coalition and consult as required with clinical leaders in children's health care, in order to consider their implementation. Further, that the conditions affecting children be included alongside adult-related conditions at the outset of future benchmarking processes to ensure that children receive equitable attention to their time-sensitive needs;
16. That FPT governments mandate an expert group to investigate the need and potential for surge capacity through the development of regional centres of excellence; and
17. That ongoing research related to wait times adopts a broad approach to gender-based analysis in order to ensure that the issues of gender are considered thoroughly.

Chapter 7: Public Education

Canada's publicly funded health care system is of paramount importance to all Canadians. It has become clear to me throughout this process, that if we are to undergo a system transformation that will put the patient at the focus of health care services federal, provincial and territorial governments must engage Canadians in a substantial and continuing way. This will involve educating Canadians about their health care systems and how they work.

Many of my recommendations propose significant system change that will affect how health care systems organize themselves, how they manage their business and utilize modern means of providing care, and how patients relate to care providers. It is only through public engagement, increasing awareness of how current systems work and how the changes we propose can improve outcomes, that Canadians can be expected to support the change process.

A public engagement and education strategy must be long-term and far-reaching. It needs to consist of information about terminology (e.g. wait times, benchmarks) and best business and industrial practices and innovations. It needs to include information on how the system works, what care is appropriate and what can reasonably be expected from the health care system as a whole. For example waiting before surgery may be appropriate in instances where a patient must improve his/her health status to ensure the success of a procedure or, as mentioned in an earlier chapter, to make personal arrangements either before or following surgery. This is just one of many messages that needs to be communicated to the public and the media. Federal, provincial and territorial governments as well as professional organizations should be encouraged to collaborate in an effort to convey common messages to Canadians.

7.1 The need for a public education strategy

We have known for a long time that public support for Canada's health care system is dependent upon the belief that the system will be there when Canadians need it. The single-most compelling reason for initiating a national public education strategy for wait times is to restore confidence in the system's ability to provide quality care in a timely manner. The perception that long wait times are pervasive and that little can, is, or has been done to improve them, has the potential to further erode Canadians' confidence. The Canadian public must be educated not only on current progress in reducing wait times but also of the system transformations before and as they occur. The changes must be seen as solutions and education can play an important role in conveying this message.

In short, I believe a public education effort around wait times is warranted. If appropriately designed and delivered, the effort should also serve to raise overall public awareness of the health system itself.

7.2 Who is “the public”?

Public opinion research suggests a continuing high-level of concern by Canadians in regard to Canada's wait times performance, as well as a generalized perception that little progress has been or is

likely to be made in the coming years. Roughly half of Canadians believe that while each level of government has taken some action to reduce wait times, more can and should be done.⁵⁷ Furthermore those who indicated they were aware of recent FMM wait time commitments were more optimistic about the likelihood of progress. Since the opinions expressed vary only slightly from one group to another, “the public” for education and awareness purposes refers to all Canadians, including the media.

7.3 How Canadians are informed about wait times and implications for a public education plan

Officials developing or delivering the proposed public education program need to be mindful that there are significant differences among Canadians by age group, income, level of education, region etc. related to how and where they receive information about the health care system. They must also take into account the fact that various stakeholders exert a degree of influence over public perceptions of wait times. It is essential to partner with these groups in developing an overall public education effort. If “trusted” sources of information are not on-board at the outset and have not had a chance to provide input on how to frame or communicate key messages in regard to the transformations, the public education effort is unlikely to achieve its full potential. In addition, the potential for these disparate groups and constituencies to serve as information conduits to deliver information or reinforce key messages must also not be overlooked.

Public education efforts should:

- be developed in consultation with key stakeholders;
- provide stakeholders with an explicit role in delivering the plan to the extent possible; and
- incorporate a multi-channel approach.

7.4 Goals of the public education effort

There appear to be three key areas on which a public education and awareness campaign on wait times could focus – none of which are mutually exclusive:

- *To improve public awareness of and manage public expectations in regard to, the health system’s performance regarding wait times* (e.g. how the system works/does not work, and why; what is/is not an “acceptable” wait time; where problems exist, why and what is being done about them; when and how soon change will occur).
- *To change perceived attitudes or behaviours of Canadians that may impede progress on improving wait times* (e.g. resistance to e-health records or tele-health; reluctance to receive treatment from anyone other than a doctor; insistence on “choice” in regard to which specialists to see).

⁵⁷ Pollara, *Health Care in Canada Survey*, 2005

- *To empower patients and encourage advocacy in regard to the transformations required to make durable progress on wait times (e.g. to strengthen interdisciplinary collaboration among health professionals; to improve coordination at the local, regional, provincial/territorial and national levels; to encourage governments, health authorities or hospitals to make targeted investments in, or fast-track the adoption of: comprehensive wait lists; best-practices research; new curriculum development and training; coordinated HHR planning; health informatics; patient navigators).*

7.5 Factors to consider

While there are a myriad of factors to consider, the most significant for the purposes of this effort are the following:

A sustained public education effort is needed and the payoff may be long-term

A common characteristic of many of the larger government-delivered or supported public education or social-marketing efforts of the past generation is that change proceeds incrementally. While there are clearly long-term benefits to be derived from a public education effort, expectations for what can be achieved in the short-term must be contained.

Focusing on a specific set of issues related to reducing wait times will produce better results

The scope, complexity and interdependencies of issues associated with improving Canada's wait time performance are substantial. This suggests the need to find an appropriate balance between overarching messages or objectives that would anchor the effort (e.g. "Fixing Wait-times for a Generation") and specific, targeted initiatives (e.g. "Making e-Health Records a Reality" or "Why Comprehensive Wait lists are Good for your Health"). A useful parallel to consider is the success that has been achieved in raising awareness among Canadians of the health risks of second-hand smoke for children within the context of a larger, more diffuse anti-smoking campaign.

Opportunities for coordinated "messaging" and partnerships should not be overlooked

The fact that any public education efforts in this area can arguably be viewed as a subset of a larger effort to improve overall public understanding of health system performance, makes the challenge of mounting a public education effort all the more daunting. Among the recommendations that are made in this chapter is the need to establish a clear focal point for developing and managing public education efforts in regard to wait times performance. Those assigned responsibility for this will need to capitalize on opportunities for shared outreach while identifying specific niches for the public education efforts they propose.

Public education must also include a media education component

Regardless of how ambitious or comprehensive the public education effort on wait times, the reality is that a single front-page headline in one of Canada's national newspapers, or a "special report" on the evening television news decrying the system's performance can undo any positive momentum that might have been achieved. It is important to include a media relations component that goes beyond

issuing media releases and responding to media requests. It is also important to distinguish between the print media and electronic media.

7.6 Public education on key transformations

The challenges associated with resolving the complex and interdependent aspects of wait time issues are considerable. The focus in relation to public education must be to increase “literacy” in order to manage expectations about what the system can deliver, encourage individuals to change behaviours and how they interact with the system *and* to become advocates for transformational changes. A well-designed public education strategy at both national and provincial levels has the potential to reduce resistance to the changes illustrated in Table 7.1 below.

Table 7.1:

FROM	TO
Cottage industry	Seamless system
Individual responsibility	Shared responsibility
Siloed	Integrated
Your doctor’s schedule determines how long you wait	The first available qualified doctor treats you
Paper-based	e-based, IT system with central registry
Inequitable	Fair
Powerlessness	Empowerment
A black hole where you fend for yourself	Patient navigators protect your interests
The interests of the system take precedence	A patient-focused/centred system
Individual doctors decide what you need	Health professionals work in teams

Other components could focus the broader “system transformations” essential to achieving progress on wait times. Some examples include but are not limited to:

Transformation 1: from individually managed to centrally managed wait-lists

Transformation 2: from the ledger and log to modern health informatics

Transformation 3: from individual approaches to team-approaches to care

7.7 A pan-Canadian plan

Until it is necessary to sustain and reinforce key messages, examples of methods that could be used to promulgate wait time messages include FPT collaboration:

- on annual “best-practices” conference/workshop on wait times;
- on a limited print ad campaign;

- on annual public opinion research to assess progress and re-focus efforts as required; and
- on an annual newspaper/Macleans insert.

The benefit of a pan-Canadian approach is that it would provide a visible and ongoing focal point of accountability for the individual and collective efforts of governments. If it is agreed that partnerships with key stakeholder groups are essential to achieve the transformations required for durable progress on wait times, the establishment of a more structured mechanism could be invaluable in facilitating these efforts.

7.8 Conclusion

In conclusion, it is evident that a public education campaign on wait times is essential to maintain public confidence in the future of the public healthcare system. Such a campaign would have the additional benefit of raising awareness about how Canada's health system operates. While the public education effort should focus primarily on the public at large, it should also take account of how public opinion is formed and influenced by key opinion leaders across Canada. This would require a multi-channel approach, including top down and bottom up outreach.

In order to achieve the full benefit and impact of such an education strategy, it is necessary for all key system stakeholders to be engaged in the design and delivery of the strategy and ensure they endorse and to reinforce the key themes and messages. This will be assured through the development of an overarching campaign theme and with a limited number of messages focusing on transformation elements.

Ideally the campaign would be developed collaboratively and delivered by both levels of government.

Chapter 7: Public Education Recommendations

18. That the public be continually informed and updated on changes taking place in the Canadian health care system;
19. That a three-year public education campaign on wait times be initiated as a collaborative effort between federal, provincial and territorial governments; and
20. That a comprehensive, multi-dimensional public education effort with the capacity to leverage support from other partnering organizations be undertaken.

Chapter 8: What the Future Holds

The effort and enthusiasm that is being applied to the management of wait times in Canada is very encouraging. The partnerships that are being created across the country, as wait times focus the energies of health regions, professions, institutions and facilities, are producing important results. New managerial, business and industrial practices are being investigated and applied, results shared and outcomes compared.

In this respect the future is bright. There are many good reasons why system transformation is necessary and many positive outcomes that will result if federal, provincial and territorial governments opt to continue down this road. As I have indicated throughout my discussions across the country the transformation of health care systems around the issue of wait times can have a more generalized effect on the system as a whole. There is substantial potential in this effort so long as the full breadth of patient-focused strategies are pursued.

I will reiterate them here:

1. **On-going research** is required to identify areas where the development of new benchmarks will be helpful. Operational research is required to ensure that business practices and system re-engineering hit the right mark. Those responsible for our health care systems need to know what the results of our wait time initiatives are, and so do Canadians.
2. **Re-engineering of our management, industrial and business practices** is essential. Many options are enumerated in this report and some of these options have already been implemented in systems across Canada. Our systems are complex and our work in this area will need continuous oversight and encouragement.
3. **Information technology** solutions must be implemented to improve communication and to ensure the availability of accurate and timely information throughout the continuum of care. Although IT can and will substantially improve the management of wait times, the need of caregivers to have correct and current information from primary health care to tertiary care is an equally important reason to pursue this objective.
4. **Cultural change** amongst health care professionals needs to accompany re-engineering of health care systems. Health care professionals play a critical role in leading change within delivery systems. New roles, relationships and responsibilities will require change on the part of physicians and other health professionals.
5. **Surge Capacity** should be developed on a regional basis to permit provinces to meet their own health care needs and to assist other provinces in periods of unmet need.
6. **Public Education** is essential if Canadians are to understand and support the kinds of changes that are required in health care and the sustained effort that will be required to

get there. Articulating the vision is essential, as is the careful education that Canadians should reasonably expect about the elements of change. We require the patience of Canadians, their support and attention. Just as Canadians told us about unacceptably long wait times, they will tell us about system transformation and whether or not our efforts are having the desired effect.

In some jurisdictions we have started to move in these directions. Despite having just begun, new issues and challenges are before us. There is no static time in the health care system. Change is a given and these new challenges are likely to emerge before our progress on wait times is completely secure. It is for this reason that apart from the transformative changes I have recommended, other aspects of health systems reform are essential as well.

I believe that preventative activities within public health programs are not optional to improving health systems – indeed many of us believe that earlier investments in comprehensive public health programs might have spared Canadians some of the health conditions that are pervasive now. Similarly, primary health care renewal is key – to ensure early identification of illness and risk factors and to provide the comprehensive care that patients deserve. Management of the prescription drug supply and new methods of financing drugs will be critical to sustaining our health care system. We must move on these fronts as well.

8.1 Patient Wait Times Guarantees

A new federal government has committed itself to the introduction of Patient Wait Times Guarantees. The timing of this commitment prompts me to make a few comments regarding guarantees, despite the fact that this issue was not explicitly included in the work that I was asked to do.

We can benefit from the experience of other countries. Several European countries have experimented throughout the 1990's with a variety of approaches to wait or care guarantees. These experiences can help Canadians understand more fully when wait time guarantees might be helpful, what their effect might be and what is involved with their administration. It is important to note that in European countries wait time or care guarantees were implemented in conjunction with other system reform initiatives.

Wait time guarantees can be defined or described in different ways, so that certain parameters of existing systems are protected or not protected. For example, in the United Kingdom and Sweden, care guarantees have been limited to the public domain, with choice of treatment being offered in another jurisdiction. Many choices are available to governments, depending on what alternatives they consider effective, timely or beneficial. It appears that wait time guarantees typically have the early effect of reducing wait times. This initially happened in Denmark where critical illness guarantees were later abandoned for a "general waiting time guarantee". Denmark's processes recognize that resources are not limitless, so those with the greatest need are given priority for care outside the local health care system.

Essentially wait time guarantees take advantage of capacity that exists elsewhere. In the Canadian system, which is geographically very large, we would ideally take full advantage of our local, provincial, territorial and national capacity before considering out-of-country options for care. The

structure(s) of our health care system, its management and culture, all affect system performance and therefore outcomes. The consideration that these structural elements are now receiving, in this report and in policy or public fora, bodes well for the system's future.

I would like to suggest that the decisions taken in Quebec, that permit the province to pay publicly for services provided in the private sector,⁵⁸ are worthy of close attention. The Quebec plan allows for a period of trial, of a guaranteed wait time on a limited basis, with attention paid to the effects that such decisions have on the integrity of the system as a whole.

Although experience with wait time or care guarantees has been varied, wait time guarantees conceptually follow naturally from wait time benchmarks. I believe, however, that the process of identifying wait time guarantees, defining their scope and term, predicting their effect, must be done with care. We need to understand associated risks, benefits and costs of wait time guarantees before taking on more in the short term that we can reasonably support in the long term.

At the same time alternatives for system restructuring and re-design bring with them new or different principles and arrangements that are welcomed by some and alarming to others. The choices that we make in the next few years are important ones.

There are three principles necessary to a discussion of wait time guarantees. All of these principles require the support of provincial and territorial governments.

1. Evidence-based benchmarks are critical to the development of wait time guarantees;
2. System transformations as described in this report are necessary to underpin guarantees of any kind;
3. Maximum use of existing capacity and strategic development of new capacity is essential:
 - The development of regional networks of excellence can allow for more timely access in and between provinces and territories. The concept of a network of excellence accepts that volumes of work and quality outcomes are closely related. This is especially the case in complex surgeries, when the demographics may offer a low volume of cases. (The capacity to build regional networks of excellence might be examined to some advantage in Canada where regions are created naturally – Atlantic Canada, Quebec, Ontario and Western Canada.) Creating additional regional capacity could result in direct wait list reductions. By redirecting care of low volume/highly complex procedures additional space for further wait list care could be identified. Federal, provincial and territorial governments might wish to test the potential of this alternative by developing a series of regional pilot projects. If we make careful choices, regional networks of excellence would have the additional advantage of building new capacity to serve all Canadians, as and when required.
 - Other alternatives for capacity development should be explored through discussion with provinces and territories. In this context the alternative of

⁵⁸ This is in reference to the decision of the Supreme Court: *Her Majesty vs. Chaoulli*, June , 2005

contracting to private providers might also be considered. This should occur, however, 1) only when the purchase of private services results in greater advantage to the publicly-funded service than what would be achieved by investing the same public funds in the public system and 2) where contractual conditions clearly specify volumes of care, anticipated outcomes and unit cost.

- Use of out-of-province/territory access points, either in other provinces or in the U.S., represents an additional alternative. All provinces and territories have used this mechanism from time to time to accommodate needs that have exceeded capacity. Most of these interventions have been of a short duration permitting more capacity to be developed locally. Out-of- province/territory and out-of-country options are the most expensive way of providing health care services.

The choice of one policy option or another, or the combination of several, will affect the outcomes of our system and its cost. A thorough federal, provincial and territorial discussion will be required.

8.2 Conclusion

The recommendations contained in this report will support effective use of our existing resources and will maximize the possibility that wait time guarantees might be met. If the transformation of health care systems were to be achieved through collaboration and synergy fostered amongst Canada's provincial and territorial health care systems, we could reasonably expect the vast majority of our wait list issues to be managed effectively.

I am hopeful that Federal, Provincial and Territorial Ministers will want to discuss the observations and recommendations of this report, many of which emanate from the experience, experimentation and wisdom of leaders, managers and professionals within their own health care systems. I believe that the implementation of these recommendations will bring about a new era of health care delivery in Canada and that patient experiences and outcomes would benefit significantly. I am also aware that the recommendations imply change that may be unsettling in some quarters or a challenge to manage. The ability of governments to take charge of these changes and bring them to fruition will increase if the efforts of our governments are synchronized and collaborative.

BIBLIOGRAPHY

Bell, Dr. Robert and Lynda Robinson, Co-Chairs, *Timely Access to Care: Final Report of the Ontario Critical Care Steering Committee*, Toronto: Government of Ontario, 2005.

Blendon RJ, Schoen C, DesRoches CM, et al. "Confronting competing demands to improve quality: a five-country hospital survey." *Health Affairs*. 2004;23:119-135.

Canada Health Infoway, Canadian Health Infoway Inc. Corporate Business Plan 2005-2006, Building on Our Successes. Toronto: Canada Health Infoway Inc., 2005.

Canadian Healthcare Association, *Excellence in Canada's Health System: Principles for Governance, Management, Accountability and Shared Responsibility*. Ottawa: CCAF-FCVI Inc./Canadian Healthcare Association, 2004.

Canadian Institute for Health Information, *Understanding Emergency Department Waiting Times: Who Is Using Emergency Departments and How Long Are They Waiting?*, Ottawa: CIHI, 2005.

Canadian Institute for Health Information, *Waiting for Health Care in Canada: What We Know and What We Don't Know*, Ottawa: CIHI, 2006.

Canadian Institute for Health Information and Statistics Canada, *Healthcare in Canada*. Ottawa: CIHI, 2005.

Canadian Medical Association, "IT Trends in Nova Scotia," *IT Trends in the Canadian Healthcare System*. Ottawa: Canadian Medical Association, 2005.

Department of Health, Putting People at the Heart of Public Services: The NHS Improvement Plan, Government of England: London, 2004.

Dermer, Dr. Mark, Dr. Bob Burns and Catarina Versaevel, *End User Acceptance Strategy: Canada Health Infoway*, February 1, 2006, Presentation to Canadian Medical Association.

EKOS Research Associates, *Rethinking Government 2005: Wave III Report*. Ottawa: Health Canada, 2005.

Global Tiger Systems Solutions Inc., *Surgical Waiting List Registries and Waiting List Initiatives in Canada*. Prepared for Acute Care and Technology Unit, Quality Care, Technology and Pharmaceuticals Division. Health Care Policy and Communications Branch, Health Canada, November 18, 2005.

Gruenwoldt, Emily C. and Glenn G. Brimacombe, "Wait" Watchers II... *Measuring Progress on Wait Time Strategies Across ACAHO Members*. Ottawa: Association of Canadian Academic Healthcare Organizations, 2006.

Health Canada, "Health Care System: Canada's Health Infostructure" found at http://www.hc-sc.gc.ca/cesss/ehealth-esante/infostructure/index_e.html on March 27, 2006.

Health Council of Canada, *A Background Note on Benchmarks for Wait Times*. National Health Council: Ottawa, 2005.

Health Council of Canada, *Health Care Renewal in Canada: Clearing the Road to Quality*, 2006.

Health Council of Canada, *10 Steps to a Common Framework for Reporting on Wait Times*, National Health Council: Ottawa, 2005.

Health Council of Canada, *Health Care Renewal in Canada: Accelerating Change*, National Health Council: Ottawa, 2005.

Health Council of Canada, *Wait Times and Access, A background paper to accompany: Health Care Renewal in Canada: Accelerating Change*, National Health Council: Ottawa, 2005.

Jackson, Beth E., Ann Pederson and Madeline Boscoe, *Gender-based Analysis and wait Times: New Questions, New Knowledge*. April 2006.

Jamieson, Wanda., *Patient Navigation within the Health Care Sector*, JHG Consulting, 2006

Kramer, Sarah, "Ontario's Wait Time Information Strategy: Supporting Better Access to Care," Presentation to *Taming of the Queue III*, March 31, 2006.

Med-Emerg Inc., *Discussion Paper on Infrastructure and Technology for "A Physician Human Resource Strategy in Canada: Task Force Two"*, September 21, 2005.

National Child and Youth Health Coalition (NCYHC), *Paediatric Surgical Wait Times Strategy National Workshop* February 24, 2006, "Building Consensus" - Background Document, February 17, 2006.

Office of IT Policy Development and Coordination, *IT Trends in the Canadian Healthcare System*. Ottawa: Canadian Medical Association, 2005.

Pollara, *Health Care in Canada Survey*, 2005.

Rachlis, Dr. Michael M., *Prescription for Excellence: How Innovation is Saving Canada's Health Care System*. Toronto: HarperCollins Publishers Ltd., 2005.

Rachlis, Dr. Michael M., *Public Solutions to Health Care Wait Lists*. Ottawa: Canadian Centre for Policy Alternatives, 2005.

Romanow, Roy J., Q.C., *Building on Values: The Future of Health Care in Canada Final Report*. Ottawa: Queen's Printers, 2002.

Rotstein, D.L., D.A. Alter, Social Sciences & Medicine: Article in Press: Short Report: Where does the waiting list begin?

Task Force Two, *A Physician Human Resource Strategy for Canada Final Report*. Ottawa, 2006.

Taylor, Malcolm G., *Health Insurance and Canadian Public Policy: The Seven Decisions that Created the Canadian Health Insurance System and Their Outcomes*, Second Edition, 1987.

The Strategic Council, March 2005.

NEWS RELEASES:

Editorial, *Windsor Star*, "Wait Times: Billions Spent, Nothing Gained" 2005-10-22.

Fayerman, Pamela, "Pilot project offers hope, shorter waits", *Vancouver Sun*, 2006-02-18, p. C2.

Fidelman, Charlie, "Surgical freeze 'incoherent': critics: Quebec guaranteeing wait times. Santa Cabrini stops hip, knee procedures until April, when new fiscal year begins", *The Montreal Gazette*, 2006-02-24, p. A6.

Gillis, John, "Beating the waiting game; Software cuts into confusion of scheduling surgeries, doctors say." *The Chronicle-Herald*. February 20, 2006, p. B6.

Gillis, John, "Health info-link upgrade complete," *The Chronicle-Herald*, 2006-03-31.

Gratzer, David, "VoteSmart: The Debate Has medicare been replaced? YES: And it's about time, says physician and author", *The Globe and Mail*, 2005-12-06, p. A23.

Harnett, Cindy E., "Faster hip, knee surgery pledged: Campbell promises more than \$60 million to reduce wait times as demand increases", *Victoria Times-Colonist*, 2006-02-02, p. A1.

Kopala, Margaret, "The next logical step in health care", *The Ottawa Citizen*, 2006-02-25, p. B7.

Lang, Michelle, *Calgary Herald*, "Private MRI clinics scan opportunities: Third facility targets aging baby boomers", 2005-11-19.

Laucius, Joanne, "Waiting times for surgery: Less than before, but still long: Billions in new federal money and some new staff, equipment and facilities have made the wait less agonizing for those who need surgery". *The Ottawa Citizen*, 2006-12-31, p. E7.

Leader- Post, "Top doctor warns of health care disparities," October 7, 2005.

Maudie, Max, "Gov't offer is 'Peanuts' long-term health-care advocates say more must be done" *The Edmonton Sun*, 2006-02-25.

McFarlane, Lawrie, "Privatization set to bury medicare," *Saskatoon Star-Phoenix*, 2005-11-28.

Silver, Donald Cameron, "Medicare's balancing act." *The Sunday Herald*, 2005-12-11.

Stokes Sullivan, Deana, "Something's got to give; Report suggests the way health care is funded in Canada has to change", *St. John's Telegram*, 2005-11-01, p. A4.

Talaga, Tanya, "Situation Critical: Ontario doctors urge overhaul of precious intensive care resources: The right patient in the right bed; Province needs new technology and teams of doctors to ensure that hospitals' sickest patients get the care they need" *Toronto Star*, 2005-11-21.

Appendices

- A. Health Canada News Release, July 21, 2005:
Government of Canada Appoints Advisor on Wait Times
- B. Health Canada Backgrounder on Wait Times: July 2005
- C. Financial Implications
- D. Provincial/Territorial Wait Time Websites
- E. Federal, Provincial, Territorial Consultations
- F. Speeches and Presentations
- G. Advisors and Contributors

News Release

July 21, 2005

For immediate release

Government of Canada appoints Advisor on wait times

Ottawa - The Government of Canada today announced the appointment of Dr. Brian Postl as the Federal Advisor on Wait Times. In this role, Dr. Postl, currently President and CEO of the Winnipeg Regional Health Authority, will work with the federal, provincial and territorial governments to achieve commitments made by First Ministers in the *10-Year Plan to Strengthen Health Care*.

"The Prime Minister and I are very pleased that Dr. Postl has agreed to accept this position," said Health Minister Ujjal Dosanjh. "I'm convinced that his credibility and experience in the health care system will serve to help us all meet the commitments set out in the *10-Year Plan*."

First Ministers committed in the *10-Year Plan* to dual objectives of better management of wait times and the measurable reduction of wait times in five priority areas (cancer, heart, diagnostic imaging, joint replacements and sight restoration). Governments committed to establishing comparable indicators and evidence-based benchmarks for wait times by December 31, 2005, and multi-year targets to achieve priority benchmarks by December 31, 2007.

"Our objective is clear: to ensure that Canadians receive the health care they need when they need it. Canadians want to see results." Minister Dosanjh added.

To advance further action on the complex and challenging task of achieving meaningful reductions in wait times, Dr. Postl will engage in dialogue with governments, health care providers and researchers to:

- identify and continue to develop consensus on establishing comparable indicators and evidence-based benchmarks;
- assess knowledge gaps and find ways to address them;
- encourage the adoption of methods and tools to better manage wait times; and
- provide advice on the best ways to move forward with further work on wait times.

Dr. Postl has vast experience in the health care system as an administrator, physician and academic. He has also served on a number of health-related boards, including the Canadian Institute for Health Information, the Canadian Patient Safety Institute, the Canadian Health Services Research Foundation, Canada Health Infoway and the Health Council of Canada.

Dr. Postl, who assumes his position effective immediately, will report regularly to the Prime Minister and the Minister of Health on the progress of his discussions.

Media Enquiries

Adèle Blanchard
(613) 957-0200

Public Enquiries

(613) 957-2991

July 2005

Backgrounder on Wait Times

In September 2004, First Ministers committed to a 10-Year Plan to Strengthen Health Care. A key component of this action plan was the commitment to achieve meaningful reductions in wait times in priority areas such as cancer, heart, diagnostic imaging, joint replacements, and sight restoration by March 31, 2007. In addition, governments committed to establish comparable indicators of access to health care professionals and diagnostic and treatment procedures by December 31, 2005. By this date, governments also agreed to establish evidence-based benchmarks for medically acceptable wait times, starting with the five priority areas.

To support the 10-Year Plan, the Government of Canada is providing \$41 billion over ten years. This includes \$5.5 billion targeted to reducing wait times.

Budget 2005 provided an additional \$15 million over four years in direct federal funding to build on and complement provincial and territorial wait times initiatives. This money will be used to engage all key players of the health care system in wait times efforts and will primarily support the development, dissemination and uptake of innovative approaches in wait times management.

Since the agreement on the *10-Year Plan*, every province and territory has taken action on diverse initiatives to reduce wait times. For example:

- The Ontario government has announced significant increases to the number of diagnostic procedures and surgeries in cardiac care, cancer, cataract and joint replacement. In addition, the *Ontario Wait Times Reduction Strategy*, is moving ahead on several fronts including work to better track wait times through a provincial registry and website.
- Increased federal transfers for health care are contributing to Saskatchewan's additional investments in such areas as the reduction of surgical backlogs, expanding diagnostic capacity, medical and surgical equipment as well as management systems to improve timely access.
- New Brunswick's 2005 Budget includes such initiatives as the development of a surgical patient registry, while Nova Scotia's latest Budget includes measures to address wait lists for orthopaedic surgery.

Progress is also happening on many other fronts across the country, including:

- The Canadian Institutes of Health Research is conducting research to gather evidence on benchmarks in the five priority areas for wait times reductions;
- The Wait Time Alliance, a collaborative of the Canadian Medical Association and medical specialty groups in the five priority areas, conducted cross-country consultations that will inform its final report on proposed benchmarks in the five priority areas.
- The Canadian Institute for Health Information will report on progress on wait times across jurisdictions and the Health Council of Canada will report on progress of elements set out in the *10-Year Plan*, including wait times.

These are only a few of the examples of action that are occurring across Canada on the wait times agenda.

Financial Implications

CHAPTER/RECOMMENDATION

CHAPTER 2: BENCHMARKS, INDICATORS AND ONGOING RESEARCH

Concept: Support for a national research agenda

1. That the Canadian Institutes of Health Research (CIHR) undertake research to:

- evaluate the effect of the benchmarks established through the FPT process;
- broaden the scope of benchmark research to include the costing and cost appropriateness criteria; and
- identify areas in which additional benchmarking is required or desirable to improve patient outcomes.

2. That multidisciplinary, collaborative panels (including researchers, clinicians and government representatives) be established to review evidence and recommend additional benchmarks to FPT governments.

3. That CIHR develop additional capacity through existing health policy institutions across Canada to enable them to study best business and industrial practices to support wait time reductions.

ESTIMATED COST

\$100 M over 5 years

CHAPTER/RECOMMENDATION

CHAPTER 3: MANAGEMENT AND INNOVATION

Concept: Support for implementing innovations

<u>CHAPTER/RECOMMENDATION</u>	<u>ESTIMATED COST</u>
Concept: Support for implementing innovations	<p>\$150 M over 3 years (Recommendations 4 & 5)</p> <p>4. A national network of wait time champions (one per province) be established to lead the development and promulgation of best practices aimed at helping patients in their wait for care throughout provincial health systems.</p> <p>5. As an extension of the foregoing recommendation, that provincial capacity for wait time coordination/navigation in health regions and major institutions be established.</p> <p>6. That the Canadian Health Services Research Foundation implement a continuing, multidisciplinary educational program for health care professionals, for the purpose of developing wait list management leadership and skills for a period of time that equips existing health care professionals to adopt best practices.</p> <p>7. That provinces and territories adopt best practices for wait times including:</p> <ul style="list-style-type: none">• the use of single common waiting lists;• an approach that permits patients to be referred to a specialty service that prioritizes the patient by acuity and offers the first available slot for intervention;• the use of queuing theories to alter current processes;• innovative case management;• team based care;• appropriateness; and• pre-habilitation programs to ensure fitness for surgery.
	<p>\$20 M over 10 years</p> <p>N/A</p>

CHAPTER/RECOMMENDATION

ESTIMATED COST

CHAPTER 4: INFORMATION TECHNOLOGY

Concept: Support for Canada Health Infoway Inc. through wait list management IT supports; and establishment of EHR in all physician offices.

8. That the federal, provincial and territorial governments accelerate the pace of pan-Canadian health information technology through Canada Health Infoway.
9. That Canada Health Infoway:
 - Develop wait time tools as proposed;
 - Continue the development of the Electronic Health Record with a plan and timeline supported by FPT governments.
10. That the development of IT health information systems in Canada be accompanied by public education to assure Canadians that privacy of information is secured.

CHAPTER 5: PROFESSIONAL ROLES AND RESPONSIBILITIES

Concept: Broaden medical consultation base

11. That FPT governments develop a broad base for receiving advice from medical communities with respect to change in the health system and long term planning. The Canadian Medical Forum can be asked to assume this role nationally, with provinces developing similar capacities locally to achieve balanced influence when medical input are deemed important.

N/A

CHAPTER/RECOMMENDATION

CHAPTER 5: PROFESSIONAL ROLES AND RESPONSIBILITIES

Concept: Support Professional & Regulatory Bodies to develop guidelines outlining best practices and responsibilities in management of wait times

<u>CHAPTER/RECOMMENDATION</u>	<u>ESTIMATED COST</u>
Concept: Support Professional & Regulatory Bodies to develop guidelines outlining best practices and responsibilities in management of wait times	\$10 M over 5 years
12. That provincial Colleges of Physicians and Surgeons establish professional and ethical standards and the means to monitor professional practice with respect to physician management of wait times in provincial health care systems. The Federation of Regulatory Authorities of Canada should coordinate this effort.	\$15 M over 5 years
Concept: Support medical colleges in developing training modules for management, wait management and associated principles for medical schools.	N/A
13. That Faculties of Medicine of Canadian universities develop curricula that supports changing health care systems and changing expectations regarding the competencies that physicians will require to participate in these systems led by the Association of Medical Faculties of Canada.	
14. That FPT work on Health Human Resources initiatives focus on re-defining professional clinical roles to enable health care professionals to work at their full potential and to offer innovations in health care, which are economical and sustainable.	

CHAPTER/RECOMMENDATION

ESTIMATED COST

CHAPTER 6: ADDITIONAL ISSUES

15. That provincial and territorial governments give consideration to the access targets developed by the National Youth and Child Health Coalition and consult as required with clinical leaders in children's Health care, in order to consider their implementation. Further, that the conditions affecting children be included alongside adult-related conditions at the outset of future benchmarking processes to ensure that children receive equitable attention to their time-sensitive needs.

16. That FPT governments mandate an expert group to investigate the need and potential for surge capacity through the development of regional centres of excellence.

17. That ongoing research related to wait times adopt a broad approach to gender-based analysis in order to ensure that the issues of gender are considered thoroughly.

CHAPTER 7: PUBLIC EDUCATION

Concept: Involving Canadians in change

18. That the public continually be informed and updated of changes taking place in the Canadian health care system.

19. That a three-year public education campaign on wait times be initiated as a collaborative effort between federal, provincial and territorial governments.

20. That a comprehensive, multi-dimensional public education effort with the capacity to leverage support from other partnering organizations be undertaken.

PROVINCIAL/TERRITORIAL WAIT TIME WEBSITES

British Columbia	<p>Wait times for 19 surgical specialties or specific procedures (including cardiac surgery, cancer radiotherapy, cataract, hip replacement, knee replacement).</p> <p>Reports median wait time and number of wait-listed patients by urgency level, by facility and by physician. Median wait times are based on surgeries performed over the past three months.</p> <p>www.health.gov.bc.ca/waitlist/</p>
Alberta	<p>Alberta Wait List Registry covers 20 specialties and procedures including cardiac surgery, coronary artery bypass surgery, cataract surgery, CT and MRI scans, hip and knee replacement, radiotherapy and chemotherapy for breast and prostate cancer.</p> <p>Provides data by type of procedure, by facility and by physician. For the 90 days prior to the report date: distribution of actual wait times, median wait time, wait time in which 25%, 50% and 75% of patients are served, number of patients served and number waiting. For cancer care, reports the wait time from referral to appointment and wait time to start treatment compared to targets.</p> <p>www.ahw.gov.ab.ca/waitlist/WaitListPublicHome.jsp</p>
Saskatchewan	<p>The Saskatchewan Surgical Care Network covers 10 surgical specialties including cardiovascular surgery, ophthalmology and orthopaedics.</p> <p>The Saskatchewan Surgical Care Network reports the distribution of actual waits for care across time intervals corresponding to the six priority levels (I – VI). Also reports the number of patients completed during the preceding six months and the number waiting at the end of the period. This information is provided for each specialty by regional health authority and for each regional health authority by major procedure. The website also reports median wait times for surgeries performed and target time frames.</p> <p>www.sasksurgery.ca</p>

Manitoba	<p>The Health Services Wait Time Information covers diagnostic imaging tests (CT, MRI, ultrasound, stress MIBI, bone density), cancer radiation therapy and cardiac surgery.</p> <p>The website lists different information depending on the procedure (and source of data). For diagnostic imaging, reports by hospital, the average wait time for the most recent month and the number of procedures completed in the most recent year. For radiation therapy and cardiac surgery, reports median wait time for cases completed in the most recent quarter and number of treatments/cases performed in the most recent year.</p> <p><u>www.gov.mb.ca/health/waitlist/index.html</u></p>
Ontario	<p>The Wait Times Strategy website covers cancer surgery, cardiac procedures, cataract surgery, hip and knee replacement, and MRI and CT scans.</p> <p>Reports the median and average wait times as well as the time by which 90% of cases were completed. This information can be viewed by hospital or Local Health Integration Network (LHIN).</p> <p><u>www.health.gov.on.ca/transformation/wait_times/wait_mn.html</u></p>
Quebec	<p>Covers heart surgery, diagnostic catheterization, angioplasty, cataract surgery, hip and knee replacement, and other day and inpatient surgeries.</p> <p>Reports by region and hospital, the number waiting longer than the recommended wait time, and the total number of patients waiting.</p> <p><u>www.msss.gouv.qc.ca/sujets/listesdattente/</u></p>
New Brunswick	<p>As of December 2005, the New Brunswick government had not provided information for the public on wait times.</p>

Nova Scotia	<p>Covers referrals to cancer specialists, diagnostic tests (including CT and MRI), cataract surgery, cardiac procedures, hip and knee replacements and cancer radiation therapy.</p> <p>Reports average wait time or percentage of patients treated within a specific period of time (such as 90 days) by facility or by district health authority.</p> <p>www.gov.ns.ca/health/waittimes/default.htm</p>
Prince Edward Island	<p>PEI does not have a website dedicated to wait time information, however a recent a report presents median wait times for the clinical areas identified as priorities in the 2004 health accord.</p> <p>www.gov.pe.ca/news/getrelease.php3?number=4418</p>
Newfoundland & Labrador	<p>Newfoundland and Labrador has posted on its website a report on how wait times in the province compare to the pan-Canadian benchmarks announced in December 12, 2005.</p> <p>www.releases.gov.nl.ca/releases/2005/health/1221n02.htm</p>
Nunavut	<p>As of December 2005, Nunavut had not provided public information on wait times.</p>
Northwest Territories	<p>As of December 2005, NWT had not provided public information on wait times. A government report was planned to meet the December 31, 2005, deadline for public information on wait times.</p>
Yukon	<p>Yukon does not have a website dedicated to wait time information. The government of Yukon reported that it currently provides only 4 of the services for which benchmarks exist and that wait times in these clinical areas fit well within the pan-Canadian benchmarks. A government report was planned to meet the deadline of December 31, 2005 for public information on wait times.</p> <p>www.gov.yk.ca/news/2005/05-327.html</p>

Federal, Provincial, Territorial Consultations

Provincial, Territorial Ministers of Health
Toronto, Ontario

- September 9, 2005

Federal, Provincial, Territorial Ministers of Health
• October 22, 2005

The Honourable Tony Clement
Minister of Health
Ottawa, Ontario

- January 9, 2006
- May 4, 2006

Mr. Morris Rosenberg
Deputy Minister, Health Canada
Ottawa, Ontario

- September 8, 2005
- January 9, 2006

Mr. Ron Sapsford
Deputy Minister, Health and Long-Term Care
Toronto, Ontario

- September 8, 2005
- February 8, 2006

Mr. John Greshner
Deputy Minister, Health and Social Services
Government of Yukon Territory
Whitehorse, Yukon Territory
Toronto, Ontario

- September 9, 2005

Mr. Bernie Blais
Deputy Minister, Health and Social Services
Government of Nunavut
Iqaluit, Nunavut
Toronto, Ontario

- September 9, 2005

Mr. David Murray
Deputy Minister, Health and Social Services
Government of the Northwest Territories
Yellowknife, Northwest Territories
Toronto, Ontario

- September 9, 2005

Mr. John Abbott
Deputy Minister, Health
Province of Newfoundland and Labrador
St. John's, Newfoundland

- September 13, 2005
- February 13, 2006

Ms. Cheryl Doiron
Deputy Minister, Health
Province of Nova Scotia
Halifax, Nova Scotia

- September 13, 2005
- February 14, 2006

Mr. David Riley
Deputy Minister, Health
Province of Prince Edward Island
Charlottetown, P.E.I

- September 14, 2005
- February 15, 2006

Ms. Nora Kelly
Deputy Minister, Health
Province of New Brunswick
Fredericton, New Brunswick

- September 15, 2005
- March 29, 2006

Dr. Penny Ballem
Deputy Minister, Health
Province of British Columbia
Vancouver, British Columbia

- September 27, 2005
- December 9, 2005
- March 21, 2006

Mr. John Wright
Deputy Minister, Health
Province of Saskatchewan
Regina, Saskatchewan

- October 3, 2005
- January 26, 2006

Ms. Arlene Wilgosh
Deputy Minister, Health and Healthy Living
Province of Manitoba
Winnipeg, Manitoba

- February 7, 2006

Ms. Patricia Meade
Deputy Minister, Health and Wellness
Province of Alberta

- March 21, 2006

Speeches and Presentations

*Canadian Institute for Health Information
Wait Times Measurement Symposium
October 5, 2005
Toronto, Ontario*

*Osgood Hall Law School National Summit
October 26, 2005
Conference
Toronto, Ontario*

*Canadian Wait Time Alliance
October 27, 2005
Ottawa, Ontario*

*Association of Canadian Academic Healthcare
Organizations (ACAHO)
November 4, 2005
Ottawa, Ontario*

*Council of Deans
November 6, 2005
Washington, DC*

*Canadian Medical Association National Health
Policy and Negotiations Conference
November 14, 2005
Toronto, Ontario*

*Canadian Medical Forum
November 30, 2005
Ottawa, Ontario*

*Canadian Institute 2nd Annual Conference
December 5, 2005
Toronto, Ontario*

*Invitational Workshop: Mapping a Strategic
Research Agenda for Timely Access to Quality
Health Care
December 7, 2005
Winnipeg, Manitoba*

*2005 Family Medical Forum
December 9, 2005
Vancouver, British Columbia*

*Canadian Health Coalition (Roundtable)
January 16, 2006
Ottawa, Ontario*

*Association of Provincial Cancer Agencies
Canadian Wait Times Measurement Consensus
February 6, 2006
Toronto, Ontario*

*Canadian Institutes of Health Research (CIHR)
February 9, 2006
Toronto, Ontario*

*National Child & Youth Health Coalition Workshop
February 24, 2006
Ottawa, Ontario*

*CMA Board of Directors Meeting
February 24, 2006
Ottawa, Ontario*

*Invitational Workshop: Professional Roles and
Responsibilities
March 2, 2006
Winnipeg, Manitoba*

*Canadian Institutes of Health Research
Discussion Meeting
March 17, 2006
Toronto, Ontario*

*Taming of the Queue III Conference
March 30, 2006
Ottawa, Ontario*

*Canadian College of Health Service Executives
Annual Executive Forum
April 19, 2006
Niagara-on-the-Lake, Ontario*

*4th Annual Health Policy Summit
April 27 & 28, 2006
Toronto, Ontario*

APPENDIX G

Advisors and Contributors Canadian Wait Times Advisory Committee

Dr. Alan Hudson
Lead
Access to Services and Wait Times Strategy
Health Results Team for the Province of Ontario
Toronto, Ontario

Dr. Pierre-Gerlier Forest
Chief Scientist
Health Canada
Ottawa, Ontario

Dr. Dennis Kendel
Registrar
College of Physicians and Surgeons of Saskatchewan
Saskatoon, Saskatchewan

Dr. Denis Roy
Chief Executive Officer
Montreal University Health Centre
Montreal, Quebec

Mr. Steven Lewis
Consultant
Access Consulting Ltd.
Saskatoon, Saskatchewan

Ms. Sheila Weatherill
President and Chief Executive Officer
Capital Health
Edmonton, Alberta

Mr. Michael Deeter
Chair
Health Council of Canada
Toronto, Ontario

Sister Elizabeth Davis
Chair
Canadian Health Services Research Foundation
Ottawa, Ontario

Dr. Charles Wright
Scientific Officer
Canadian Health Services Research Foundation
Toronto, Ontario

Ms. Glenda Yeates
President and Chief Executive Officer
Canadian Institute for Health Information
Ottawa, Ontario

Provincial Officials

The Honourable George Abbott
Minister of Health
Province of British Columbia
Victoria, British Columbia

Dr. Penny Ballem
Deputy Minister, Health
Province of British Columbia
Victoria, British Columbia

The Honourable Iris Evans
Minister of Health and Wellness
Province of Alberta
Edmonton, Alberta

Ms. Patricia Meade
Deputy Minister, Health and Wellness
Province of Alberta
Edmonton, Alberta

Ms. Annette Trimbee
Assistant Deputy Minister, Health
Strategic Directions
Province of Alberta
Edmonton, Alberta

The Honourable Len Taylor
Minister of Health
Province of Saskatchewan
Regina, Saskatchewan

Mr. John Wright
Deputy Minister, Health
Province of Saskatchewan
Regina, Saskatchewan

The Honourable Tim Sale
Minister of Health
Province of Manitoba
Winnipeg, Manitoba

Ms. Arlene Wilgosh
Deputy Minister, Health and Healthy Living
Province of Manitoba
Winnipeg, Manitoba

The Honourable George Smitherman
Minister of Health and Long Term Care
Province of Ontario
Toronto, Ontario

Mr. Ron Sapsford
Deputy Minister, Health and Long Term Care
Province of Ontario
Toronto, Ontario

The Honourable Dr. Philippe Couillard
Minister of Health and Social Services
Province of Quebec
Quebec, Quebec

Dr. Juan Roberto Iglesia
Deputy Minister, Health and Social Services
Province of Quebec
Quebec, Quebec

The Honourable Brad Green
Minister of Health
Province of New Brunswick
Fredericton, New Brunswick

Ms. Nora Kelly
Deputy Minister, Health
Province of New Brunswick
Fredericton, New Brunswick

The Honourable Chris D'Entremont
Minister of Health
Province of Nova Scotia
Halifax, Nova Scotia

Ms. Cheryl Doiron
Deputy Minister, Health
Province of Nova Scotia
Halifax, Nova Scotia

The Honourable Chester Gillian
Minister of Health, Social Services and Seniors
Province of Prince Edward Island
Charlottetown, Prince Edward Island

Mr. David Riley
Deputy Minister, Health
Province of Prince Edward Island
Charlottetown, Prince Edward Island

The Honourable Tom Osborne
Minister of Health and Community Services
Province of Newfoundland and Labrador
St. John's, Newfoundland

Mr. John Abbott
Deputy Minister, Health and Community Services
Province of Newfoundland and Labrador
St. John's, Newfoundland

The Honourable Brad Cathers
Minister of Health and Social Services
Government of Yukon Territory
Whitehorse, Yukon Territory

Mr. John Greschner
Deputy Minister, Health and Social Services
Government of Yukon Territory
Whitehorse, Yukon Territory

The Honourable J. Michael Miltenberger
Minister of Health and Social Services
Government of the Northwest Territories
Yellowknife, Northwest Territories

Mr. Chuck Parker
Deputy Minister, Health and Social Services
Government of the Northwest Territories
Yellowknife, Northwest Territories

The Honourable Leona Aglukkaq
Minister of Health and Social Services
Government of Nunavut
Iqaluit, Nunavut

Mr. Dave Ramsden
Interim Deputy Minister, Health and Social Services
Government of Nunavut
Iqaluit, Nunavut

Contributors

Dr. Andrew Affleck
Canadian Association of Emergency Physicians
Ottawa, Ontario

Dr. Richard Alvarez
President and Chief Executive Officer
Canada Health Infoway
Toronto, Ontario

Mr. Michel Amar
Consultant
Michel Amar and Associates
Ottawa, Ontario

Ms. Lucille Auffrey
Chief Executive Officer
Canadian Nursing Association
Ottawa, Ontario

Dr. Morris Barer
Scientific Director
Institute of Health Services and Policy Research
Vancouver, British Columbia

Dr. Alan Bernstein
President
Canadian Institutes of Health Research
Ottawa, Ontario

Dr. Geoff Blair
Professor of Surgery
University of British Columbia
Vancouver Children's Hospital
Vancouver, British Columbia

Ms. Madeline Boscoe
Executive Director
Canadian Women's Health Network
Winnipeg, Manitoba

Dr. Michel Brazeau
Former President
Royal College of Physicians and Surgeons of Canada
Ottawa, Ontario

Mr. Glenn Brimacombe
Chief Executive Officer
Association of Canadian Academic Healthcare
Organizations
Ottawa, Ontario

Dr. Robert Burns
Registrar
College of Physicians and Surgeons of Alberta
Edmonton, Alberta

Dr. Nick Busing
President and Chief Executive Officer
Association of Faculties of Medicine of Canada
Ottawa, Ontario

Dr. Ben Chan
Chief Executive Officer
Health Quality Council of Saskatchewan
Saskatoon, Saskatchewan

Dr. Doug Cochrane
Professor and Surgeon
Faculty of Medicine
University of British Columbia
Vancouver Children's Hospital
Vancouver, British Columbia

Dr. Ruth Collins-Nakai
President
Canadian Medical Association
Ottawa, Ontario

Ms. Marie Davis
Executive Director
Canadian Paediatric Society
Ottawa, Ontario

Ms. Denise Desautels
Acting Director
Canadian Health Care Association
Ottawa, Ontario

Ms. Peggy Holt
Coordinator
Cardiac Surgery
Winnipeg Regional Health Authority
Winnipeg, Manitoba

Ms. Lauren Donnelly
Assistant Deputy Minister
Saskatchewan Surgical Care Network
Saskatoon, Saskatchewan

Ms. Betty Holunga
Care Coordinator
Misericordia Hospital
Winnipeg, Manitoba

Dr. Cy Frank
Director
Alberta Bone and Joint Institute
University of Calgary and Calgary Health Region
Calgary, Alberta

Dr. Beth Jackson
Chair
Post Doctorate Fellow
Canadian Institute for Health Research
York University

Ms. Danielle Frechette
Royal College of Physicians and Surgeons of Canada
Ottawa, Ontario

Ms. Wanda Jamieson
Consultant
JHG Consultants
Ottawa, Ontario

Dr. Rocco Gerace
Registrar
College of Physicians and Surgeons of
Ontario
Toronto, Ontario

Senator Wilbert Keon
Deputy Chair
Senate Committee on Social Affairs, Science and
Technology
Ottawa, Ontario

Dr. Kevin Glasgow
Chief Executive Officer
Cardiac Care Network of Ontario
Toronto, Ontario

Senator Michael J.L Kirby
Chair
Senate Committee on Mental Health
Ottawa, Ontario

Dr. Peter Glynn
Senior Advisor
Access to Services and Wait Time Strategy- Health Results Team
Toronto, Ontario

Dr. Fleur-Ange Lefebvre
Chief Executive Officer
Federation of Medical Regulatory Authorities of Canada
Ottawa, Ontario

Dr. Cal Gutkin
Chief Executive Officer
College of Family Physicians of Canada
Mississauga, Ontario

Mr. Normand Laberge
Chief Executive Officer
Canadian Association of Radiologists
Montreal, Quebec

Ms. Mary Jo Haddad
President and Chief Executive Officer
The Hospital for Sick Children
Toronto, Ontario

Dr. Cameron Little
Registrar
College of Physicians and Surgeons of Nova Scotia
Halifax, Nova Scotia

Dr. Jonathan Lomas
Chief Executive Officer
Canadian Health Services Research Foundation
Ottawa, Ontario

Dr. Bruce Martin
Director
Northern Medical Unit
Faculty of Medicine
University of Manitoba
Winnipeg, Manitoba

Dr. Danielle Martin
Health Professionals Network
Ottawa, Ontario

Dr. John Maxted
Executive Director
College of Family Physicians of Canada
Mississauga, Ontario

Dr. William Mackillop
Cancer Care and Epidemiology
Queens University Cancer Research Institute
Kingston, Ontario

Mr. Michael McBane
National Coordinator
Canadian Health Coalition
Ottawa, Ontario

Ms. Valerie McKay
Executive Director
Canadian Association of Emergency Physicians
Ottawa, Ontario

Dr. Cyril Moyse
Registrar
College of Physician and Surgeons of
Prince Edward Island
Charlottetown, Prince Edward Island

Mr. Dwight Nelson
Chief Executive Officer
Regina-Qu'Appelle Health Region
Regina, Saskatchewan

Dr. Tom Noseworthy
Chair
Western Canada Wait List Project
Calgary, Alberta

Ms. Elaine Orrbine
Chief Executive Officer
Canadian Association of Paediatric Health Centres
Ottawa, Ontario

Mr. Bill Pascal
Chief Technology Officer
Canadian Medical Association
Ottawa, Ontario

Ms. Ann Pederson
Manager
Policy and Research
British Columbia Centre of Excellence for Women's
Health
Vancouver, British Columbia

Dr. Bill Pope
Registrar
College of Physicians and Surgeons of Manitoba
Winnipeg, Manitoba

Dr. Jeff Porter
Acting Chief of Surgery
Cancer Care
Halifax, Nova Scotia

Dr. Michael Rachlis
Health Policy Analyst
Toronto, Ontario

Ms. Shanda Naylor
Director
Surgical Services
Calgary Health Region
Calgary, Alberta

Mr. Rick Roger
Consultant
Victoria, British Columbia

Dr. Claudia Sanmartin
Senior Analyst
Health Analysis and Measurement
Statistics Canada
Ottawa, Ontario

Dr. Carol Sawka
Vice President
Clinical Programs
Cancer Care Ontario
Toronto, Ontario

Dr. Peter Seland
Deputy Registrar
College of Physician and Surgeons of
British Columbia
Vancouver, British Columbia

Ms. Sharon Sholzberg-Gray
President and Chief Executive Officer
Canadian Health Care Association
Ottawa, Ontario

Dr. Terry Sullivan
President and Chief Executive Officer
Cancer Care Ontario
Toronto, Ontario

Dr. Richard Steyn
National Clinical Lead
Demand and Capacity
National Health Service, UK

Dr. Mark Taylor
Department of Surgery
University of Manitoba
Winnipeg, Manitoba

Dr. Peter Rockwood
Professor
Orthopaedic Surgery,
Memorial University
St. John's, Newfoundland

Mr. William Tholl
Chief Executive Officer
Canadian Medical Association
Ottawa, Ontario

Ms. Hanita Tiefenbach
Director
Intergovernmental Aboriginal Policy Branch
Ontario Ministry Of Health
Toronto, Ontario

Mr. George Tilley
President and Chief Executive Officer
Eastern Regional Health Authority
Newfoundland and Labrador
St. John's, Newfoundland

Dr. Joann Trypuc
Consultant
Ontario Health Results Team
Toronto, Ontario

Dr. Jack Tu
Chief Executive Officer
Institute of Clinical Evaluative Sciences
Ottawa, Ontario

Dr. Morris VanAndel
Registrar
College of Physicians and Surgeons of British Columbia
Victoria, British Columbia

Dr. Diane Watson
Assistant Director
Institute of Health Services and Policy Research
Ottawa, Ontario

Dr. Rob Weiler
Co-Chair
Saskatchewan Surgical Care Network
Saskatoon, Saskatchewan

Dr. Trevor Theman
Registrar
College of Physicians and Surgeons of Alberta
Edmonton, Alberta

Dr. Charles Wright
Scientific Officer
Canadian Health Services Research Foundation
Toronto, Ontario

Dr. James Wright
Surgeon-in-Chief
The Hospital for Sick Children
Toronto, Ontario

Dr. Jennifer Zelmer
Vice President
Canadian Institute for Health Information
Toronto, Ontario

Dr. Ron Zernicki
Executive Director
Alberta Bone and Joint Institute
Calgary, Alberta

Health Canada

Mr. Morris Rosenberg
Deputy Minister of Health
Ottawa, Ontario

Mr. Ian Shugart
Senior Assistant Deputy Minister
Ottawa, Ontario

Ms. Meena Ballantyne
Director General
Health Care Policy Directorate
Ottawa, Ontario

Ms. Diane Lugsdin
Manager
Health Policy Branch,
Health Canada
Ottawa, Ontario

Ms. Martha Hall
Senior Policy Analyst
Health Policy Branch
Ottawa, Ontario

Ms. Sylvie Gauthier
Senior Policy Analyst,
Health Policy Branch
Ottawa, Ontario

Mr. Rodney Ghali
Senior Advisor to Minister
Health Canada
Ottawa, Ontario

Ms. Judith Dowler
Senior Advisor to the Deputy Minister
Ottawa, Ontario

Mr. Frank Fedyk
Director General
Ottawa, Ontario

Ms. Aruna Sadana
Director,
Federal and Provincial Relations
Ottawa, Ontario

Ms. Lucy Falastein
Senior Policy Analyst
Health Policy Branch
Ottawa, Ontario

Mr. Robert Shearer
Director
Health Policy Branch
Health Canada
Ottawa, Ontario

Ms. Helen McElroy
Health Policy Branch
Health Canada
Ottawa, Ontario

Mr. Luke Jones
Health Policy Analyst
Health Canada
Ottawa, Ontario

Mr. Tim Hunt
Senior Policy Advisor
Health Canada
Ottawa, Ontario

Reports

1. Canadian Health Services Research Foundation (CHSRF):— “*Shorter Waits and Improved Flows Training Program*” (*SWIFT*)
2. Canada Health Infoway: “*Addressing Wait Times with Information Technology*”
3. National Child and Youth Health Coalition (NCYHC): “*National Paediatric Surgical Wait Times Strategy: Access Targets*”
4. Pan Canadian Health Human Resource Strategy
5. Women and Health Care Reform Group: “*Gender Based Analysis and Wait Times Report: New Questions, New Knowledge*”

Shorter Waits and Improved Flows Training Program (SWIFT)

Réduction de l'attente par des processus intégrés de services (RAPIDS)

A Proposal from the Canadian Health Services Research Foundation

**“Governments acknowledge that they cannot reduce wait times
on their own”**

Statement of Federal-Provincial-Territorial Ministers of Health
Toronto, Ontario - October 22-23, 2005

**“A Conservative Government will be open to innovations
which would reduce waiting lists, improve the quality of care,
and ensure better coordination and information sharing
in the delivery of health”**

Conservative Party of Canada; Policy Declaration; March 19, 2005

**Shorter Waits and Improved Flows Training Program (SWIFT)/
Réduction de l'attente par des processus intégrés de services (RAPIDS)
A Proposal from the Canadian Health Services Research Foundation**

Key Features

- Fully bilingual program to improve wait times and patient flows through executive training for those managing access to the health system
- Post-training network activities including annual meetings to share experiences with peers and continuous learning opportunities via 'desktop technology' that connects graduates to distance education modules and updated research on patient flow and related areas
- Five year, phase one training blitz to graduate at least 400-500 executives, physicians, nurses and other allied health professionals involved with managing patient flows, followed by 60 to 80 graduates per year for five years thereafter in a second consolidation phase
- Applications made by institutions sponsoring their most appropriate candidates; nominal financial and in-house resource contributions from the sponsor that support a rapidly expanding cohort of designated trainees in each institution
- One year duration with three face-to-face weekend training sessions (two regional and one national) and an intervention project conducted at the home institution
- Training sessions distributed across the four regions (West, Ontario, Quebec, Atlantic) in a way that balances regional convenience with opportunities for national peer networking
- Additional web-based modules for further learning available for trainees to select from to complete the program
- Total cost of \$29.5 million (\$14.4 million for the 'blitz phase' and \$12.8 million for the consolidation phase, plus approximately \$2.2 million ramp-up and wind-down activities)

Background

Waiting is an important issue in health care, and wait time issues powerfully influence health politics and policy agendas. Governments have made major commitments to decrease wait times, notably in the five clinical areas specified in the 2003 Health Accord and confirmed by the federal government and the provinces in the December 2005 agreements on benchmarks. Progress requires not only commitment and in some cases funding, but also concrete tools and processes to manage a complex system. The quality improvement literature contains stories of major success in reducing wait times on a local and even (in the case of the UK in particular) a national scale. Dramatic improvement is possible if people have the knowledge, tools and support to bring it about.

Program goals and description

This proposal, led by the Canadian Health Services Research Foundation (see Attachment 1), will develop the **Shorter Waits and Improved Flows Training (SWIFT)** program. The two objectives of the program are:

1. To train clinicians, managers and policy makers in how to reduce unnecessary and harmful waits in the health care system, thereby improving the patient experience and reducing overall wait times for services
2. To create an ongoing national network of evidence-informed decision-makers able to use developing knowledge and access new tools to improve the flow of patients in and their access to healthcare services.

In December 2005 we surveyed 14 of the leading senior managers and clinicians across the country to assess their interest in such a program, and to obtain their advice on how it might be developed and implemented to be effective and responsive to their needs and circumstances. In all but one case there was enthusiastic support for the program and a commitment to sponsor and support trainees.

The following proposal for SWIFT incorporates the findings of this survey and suggests that the detailed form and content of the program should be defined by:

- The deliberations of a curriculum committee to create the precise educational strategy, identify national and international faculty, assess the time required to deliver a successful program, and design the modules that combine core and optional content
- Further consultations with the practice, management, and policy communities to influence curriculum development and overall program design
- Discussions with existing and prospective partners to generate a broad base of support, identify opportunities for complementary programming and experiences for participants, and avoid duplication of effort
- Feedback from initial cohorts of alumni and emergence of new interests and needs from the health care system

The overall design and structure of SWIFT will build on the successes and lessons learned from similar CHSFR capacity development programs for evidence-informed decision-making such as the Executive Training for Research Application (EXTRA) program (see Attachment 1). Rather than rely on a single educational institution for delivery the program will run from a central coordinating office that selects the best faculty from many national and international educational institutions. This coordinated national characteristic also facilitates the fully bilingual nature of the program, the development of national peer-networking (a highly valued product of these programs by participants), and an ability to rapidly adapt the curriculum to changing regional needs using ongoing monitoring and evaluation data.

By moving the 'training' from the traditional university-based environment into a nationally coordinated program it is far more responsive to the needs and contexts of its clients. It is

also better able to create a national community of graduates poised to improve patient flows, reduce wait-times, and improve patient satisfaction using the best available evidence. These individuals and the network they form will serve as a vital ongoing resource to assist organizations across the country to improve their performance.

The program, offered in both official languages, will involve a combination of:

- learning and exchange in regionally-based sequestered venues
- self-directed web-based learning
- interventions in trainees home institutions
- at least one annual face to face meeting of all program participants
- the creation of a network to continue to support the evidence needs of graduates beyond the formal training program

Our experience with the EXTRA program has demonstrated that SWIFT will require significant organizational commitment to implementing wait times and patient flow strategies to improve access. With a backlog of skill development needs an initial 'blitz phase' will create 400-500 graduates in the first five years of the program. In the second five-year 'consolidation phase' maintenance and growth will be achieved with 60-80 graduates per year. In addition, the maximum benefit stemming from the gradually expanding network of graduates will take time to manifest. For these reasons, this proposal is constructed as two five year phases on the premise that the full benefits will only be achieved with a minimum 12-year program – the two 5-year offerings with the addition of one year to prepare for the first intake and one year to complete evaluations and reports.

Target Audiences

SWIFT will target people in a position to introduce wait time management techniques and flow processes into important areas of care. The eligibility pool should be inclusive and provide opportunities for all involved in the patient flow management process. Examples include:

- Clinical leaders, such as heads of surgery or diagnostics
- Clinical managers, such as directors of various care portfolios
- Operating room managers
- Professional access leaders such as chief nursing, rehabilitation, laboratory, diagnostic imaging, and other officers
- Senior leaders in organizations who can make policy and resource allocation decisions
- Directors and managers of provincial and regional care networks (e.g., Saskatchewan Surgical Care Network; Cancer Care Ontario)
- Quality improvement officers
- Information system managers
- Wait time coordinators
- The staff of Quality Councils and other organizations with quality improvement mandates

Ramping up

Our experience with EXTRA has taught us that proper planning is critical to the success of this type of program. In the first year of funding, we will consult with partners, leaders in the health system, and potential candidates to ensure that the program is designed to meet the specific needs of the system and its clients. We will design a curriculum that addresses the right issues and competencies, and develop an IT desktop that is configured to the specific needs of trainees. We will assemble and train a world-class faculty, and create the necessary training materials in both official languages. We will ensure that the logistical details are in place for us to deliver a rigorous, high quality and sustainable training experience.

Proposed Intake

Following a ramp-up period, the program will serve 4 regionally-based cohorts of 25 trainees each year for at least the first 5 years – the ‘blitz phase’. In the subsequent five years, the ‘consolidation’ phase, the four cohorts will be reduced in size to between 15 and 20. Participation in the program will be spread out over the course of one year.

Given that managing wait times and patient flows is an organizational and systemic rather than an individual issue, it is not surprising that the survey of health system leaders revealed unanimous agreement that it is more effective to solicit organizations as applicants rather than individuals. Organizations will express their intentions and commitments to improve wait time performance, and will be asked to designate the individual(s) to participate in the program. If demand is sufficiently high, it could be feasible to offer a combination of SWIFT-funded and organization-funded slots (to accommodate large organizations who might wish to have larger numbers trained). In addition, there could be a “train the trainer” approach to build capacity faster in enthusiastic organizations.

The initial focus will be on research-based approaches to managing acute care wait times and related patient flow issues. The initial survey revealed a wide spectrum of other interests that could be offered as optional modules as the program evolves. Among the areas that might be considered are research-based approaches to:

- Change management and communications with the public
- Access to primary care
- Referral patterns to specialists
- Risk management
- Managing information flows from, for example, diagnostics to providers, hospitals to ambulatory care, primary care to community and long term residential care

Program Content

SWIFT will provide on-site, intensive training in wait time and patient flow organization and management. Based on preliminary thinking at CHSRF and the initial survey feedback, and using a variety of pedagogical tools, the core curriculum will provide participants with evidence-based training, tools, and approaches to address areas such as:

- Operations research—processes for optimizing patient flows and reducing wait times
- Information systems for wait times management
- Prioritizing need—whether and how to classify patients
- Identification of the sources of bottlenecks
- Interactions among patient needs and system capacities that can either slow down or speed up the journey through the care process
- Multi-level modelling of needs and capacities
- Management of human, capital, and financial resources to reduce wait times

The program will also incorporate contextual content such as:

- Identifying and incorporating community needs
- Defining and improving appropriateness
- Evaluating performance for improvement—both process and outcomes
- Incorporating the role of incentives—aligning practices with objectives

Program Logistics and Approach

Based on the initial survey and the preliminary overview of content, but subject to further refinement of the curriculum, the program will be shaped around the following form:

- Three core modules of three days each (Fri-Sat-Sun) over a one year period
- The first two modules will each be offered in each region (West, Ontario, Quebec, and Atlantic) for a total of eight module offerings to 25 regional participants each time; the third and final module will be delivered nationally in a central location with all 100 participants in attendance
- Participants will choose up to three additional modules to be offered using web-based delivery mechanisms, on topics of interest to be taken at the discretion of the participants and/or their home organizations; there will be up to one week of this kind of web-based instruction in home organizations
- A core faculty of four will develop and deliver the program (reducing the reliance on one-time guest lecturers given the focused and operational nature of the training)
- Senior organizational officials from the home institution will attend policy-oriented sessions

Organizational Commitments

The experience of CHSRF with existing capacity development programs argues for measures to encourage strong organizational commitments to the program. Thus SWIFT will require that:

1. The organization submits the application and selects the participant(s) to represent it
2. Each trainee or team of trainees will be supported to undertake an intervention project in his or her home organization to put in practice the learnings from the program
3. The organization will contribute a standard configuration laptop computer and \$5,000

per trainee toward the accommodation, travel and network connection costs for the program

4. The senior-most executive responsible for wait times management/patient flows in each trainee's organization will attend the annual all-participant session

Core and Potential Partners

The core partners for this program along with CHSRF have already confirmed their enthusiasm and interest: the Royal College of Physicians and Surgeons, the Academy of Canadian Executive Nurses, the Canadian Society of Physician Executives, and the Canadian Council on Health Services Accreditation. It will also be crucial to attract a Quebec core organization such as the AQÉSSS (L'Association québécoise d'établissements de santé et de services sociaux).

In addition to these core partners, the involvement of organizations that can assist with curriculum development and delivery, communications and knowledge translation, and recruitment is highly desirable. Examples of such organizations are:

- Organizations with a quality improvement mandate, particularly those with a mandate to build capacity in service organizations, e.g., the Saskatchewan, Alberta and Ontario Health Quality Councils
- Organizations with specific wait time management mandates, e.g., Coronary Care Network of Ontario, Saskatchewan Surgical Care Network
- Educational programs for administrators, e.g., Masters of Health Administration and Masters of Business Administration courses
- Continuing health education programs or standards-setters
- Organizations with a mandate to provide potentially relevant infrastructure support, e.g., Canada Health Infoway
- Organizations with a monitoring and reporting mandate, e.g., Health Council of Canada
- Organizations with a research mandate, e.g., Canadian Institutes of Health Research

Relationships with Existing Programs

Some jurisdictions have already developed or supported programs to enhance knowledge and strategies to reduce wait times (e.g. Ontario' Health Improvement Teams, Health Quality Council in Saskatchewan). We expect that these activities will continue, and SWIFT/RAPIDS will monitor the initiatives to ensure that our program is both complementary and innovative.

The uniqueness and value-added of our program lies in the following areas:

1. It will examine both technical and policy aspects of wait times and access rather than focusing exclusively on specific tools and processes. Participants will be exposed to the environmental factors that affect system performance and will learn from international experiences. There will be a particular emphasis on change management, and barriers to and facilitators of rapid improvement.

2. While wait times for specific procedures are top of mind in Canada at present and will be addressed in the early phases of SWIFT/RAPIDS, they are a subset of the larger question of the flows of patients, information, human resources, and capital. Bottlenecks occur for many reasons and may vary from sector to sector (e.g. laboratory, primary care, long term residential care and emergency room). The program will continuously scan the environment and will develop new modules to address emerging problems.
3. It will sustain a network of graduates that will create opportunities for continuous learning and exchange across the country.
4. There will be continuous evaluation to ensure relevance, high standards of instruction and materials, and applicability to concrete problems in the system.

Governance and Accountability

In consultation with program partners, an Advisory Committee will be established to oversee the curriculum development and overall design of the program. It will also be charged with recommending ongoing adaptation in response to the results of regular progress monitoring and outcome evaluation.

The CHSRF Board of Trustees will be responsible for the administration of funds and the accountability for its appropriate use in line with the program's stated goals and objectives. An annual report will be produced and submitted to the Government of Canada and other related funding partners in which expected annual performance will be matched against actual outcomes and performance measures.

Budget Overview

The proposed budget that we are requesting has been calculated for four phases: ramp-up (year 1), blitz intake phase (years 2-6), consolidation intake phase (years 7-11) and wind-down (year 12).

The costs for each phase are:

Year 1:	\$1,144,500
Years 2-6	\$14,410,750
Years 7-11	\$12,790,250
Year 12	\$1,112,750

Detailed calculations for the \$29.5M total costs are outlined on the following page.

Detailed Budget

	Ramp-up Year 1	Blitz Phase Years 2-6	Consolidation Phase Years 7-11	Wind-down Year 12	Total
Staffing	287,750	2,104,250	1,971,500	443,000	4,806,500
Consultancy	100,000	129,750	79,000		308,750
Curriculum development	150,000	344,000	100,000		594,000
Travel - committee	32,000	-	-		32,000
Communications and promotion	100,000	515,500	412,000		1,027,500
Trainees - travel & residencies		2,846,000	2,395,500		5,241,500
Faculty - travel, residencies and stipends		1,564,500	1,752,250		3,316,750
Senior organizational officials - participation costs		676,000	444,750		1,120,750
Course materials / on-going network costs	250,000	564,250	894,000		1,708,250
IT Platform / Desktop		1,500,000	1,500,000		3,000,000
Site rentals / venues		321,250	293,000		614,250
Candidate review / selection		355,000	203,250		558,250
Translation (documentation and simultaneous)		417,000	169,000		586,000
Program evaluation		625,000	375,000		1,000,000
Miscellaneous	50,000	250,000	250,000	50,000	600,000
Final program evaluation				200,000	200,000
Concluding conference				150,000	150,000
Concluding debrief				50,000	50,000
Final documentation production				50,000	50,000
Subtotal	969,750	12,212,500	10,839,250	943,000	24,964,500
Overhead	174,750	2,198,250	1,951,000	169,750	4,493,750
Total	1,144,500	14,410,750	12,790,250	1,112,750	29,458,250

... BEYOND A GRANTING COUNCIL

BUILDING BRIDGES BETWEEN HEALTH SERVICES RESEARCHERS AND HEALTH SERVICES DECISION MAKERS

The Foundation

The Canadian Health Services Research Foundation is a world leader in "linkage and exchange," the interactive model that brings together those doing research on the health system with those who run it. The foundation helps the health system make better decisions with more relevant research. To do this effectively, it engages the participation of those who generate new knowledge through research and those who apply this knowledge in making decisions. The foundation:

Goes beyond being a granting agency by:

- funding applied health services and nursing research as just one of its many core programs.

Builds bridges between researchers and decision makers across Canada by:

- encouraging and facilitating both communities to learn more about each other and to use each other's work in what they do.

Makes it easier for health system managers to use research-based evidence by:

- summarizing research results and presenting them in ways that managers and policy makers in the health system can understand and use;

- providing tools, networks, and staff that help health system organizations find and use research results in their decisions; and

- training senior-level executives, physicians, and nurses in the health system to use research and become leaders for evidence-based decision-making.

Creates capacity in the research community to respond to the health system's needs by:

- supporting a national network of training programs and faculty that graduate specially trained applied researchers each year;

- leading a national consultation every three years on the medium-term research needs of the health system; and

- working with universities to promote an environment that is supportive of applied research including appropriate awards for applied researchers.

Engages in effective partnerships by:

- forming partnerships to increase the scope of its work far beyond its own resources and reduce duplication, complement other organizations' strengths, and provide the opportunity to reach other audiences; and

- leveraging more than 60 percent of the cost of its program awards through partnerships.

To learn more about the foundation, visit the web site at www.chsrf.ca.

"From the outset (the foundation) has engaged the participation both of those who generate new knowledge and those who apply new knowledge in making decisions... Its novel (and resolute) commitment to engage researchers and decision makers has borne fruit. That fruit is in the form of a growing community of those on both sides of this 'street' who are now prepared to walk together down the mid-line rather than remaining on their own sidewalks."

— Duncan Sinclair, Professor Emeritus and Fellow, School of Policy Studies, Queen's University

... MAKING RESEARCH WORK

... BEYOND A GRANTING COUNCIL

MAKING IT EASIER FOR HEALTH SYSTEM MANAGERS TO USE RESEARCH-BASED EVIDENCE Executive Training for Research Application (EXTRA)

Launched in 2004 and enrolling 24 fellows per year for 10 years, the Executive Training for Research Application (EXTRA) program is a challenging and rewarding two-year fellowship designed to develop capacity and leadership to optimize the use of research-based evidence in managing healthcare organizations. The goals of the EXTRA program are to help health system leaders and managers find and apply research in their daily work, facilitate evidence-based decision-making, and provide participants with professional development and experiential learning opportunities. The EXTRA program:

targets mid-career nurse, physician, and other health service executives in senior management positions who are able to influence change in their organizations;

combines residency seminars, e-learning, networking components (facilitated by a state-of-the-art Internet-based desktop system), mentoring support, intervention projects undertaken in fellows' home institutions, and post program support and activities involving program graduates and their organizations. Participants will:

- acquire and use research-based evidence to assess issues and analyse alternative courses of action;
- use data and research information in decision-making with greater confidence; and
- collaborate with colleagues from across the country and across disciplines to acquire skills in evidence-based decision-making in the management of health systems from a broader, comparative perspective;

encourages the important collaboration between health services executives, nurses, and physicians and shares experiences with top managers from across Canada on complex healthcare management issues through the fellowship experience;

operates four regional mentoring centres to enlist, match, and train mentors for the fellows who can provide curriculum advice and assist with the design and application of the intervention project; and

is a partnership with the Canadian College of Health Service Executives, the Canadian Medical Association, the Canadian Nurses Association, and a consortium of Quebec partners (represented by the Agence des technologies et des modes d'interventions en santé (AETMIS) using funds from Health Canada. *

For more information about the EXTRA program, visit the foundation's web site at
www.chsrf.ca/extra.

Executive Training for Research Application (EXTRA)

"More than 90 percent of fellows surveyed said EXTRA had enhanced their understanding of how research is conceived and conducted, their knowledge of health services research, and their skills to apply it in their home organizations."

— From a survey of the first cohort of fellows.

* The EXTRA program was set up with a grant from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.

... MAKING
RESEARCH WORK



Canada
Health
Infoway

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Santé
du Canada



Creating Healthy Connections

Addressing Wait Times with Information Technology

Submitted To: Dr. Brian Postl

Submitted By: Canada Health Infoway

Date: March 21, 2006

EXECUTIVE SUMMARY

Timely access to care is critical to optimizing health, health outcomes, and improving patient satisfaction. With increasing wait times for many health care services, monitoring and management of wait times has become a focus for governments in Canada and internationally.

Wait time initiatives in Canada have varied from the web-based reporting of wait times in selected surgical and diagnostic procedures to more focused investments in increasing capacity and redesigning system processes. Information and communication technologies have demonstrated value in many of the efforts to date and will increasingly become crucial to supporting clinicians providing timely and equitable access to quality health care for Canadians.

This document frames the wait time issue in terms of a patient's journey through the health care system. The use of information and communication technologies will result in the following benefits:

Access

- **Support timely delivery of care** - solutions to improve referral and scheduling processes and overall case management will help providers decrease the overall time between identification of need and treatment.
- **Support equitable distribution of care** - solutions for prioritization of resource usage will help ensure that care is delivered appropriately on the basis of need.

Quality

- **Improve appropriateness of care** - standardized assessment and wait time prioritization will help providers ensure that the wait time is appropriate for the patient.
- **Improve effectiveness of care** – more timely access to physicians, specialists, diagnostic tests, surgical procedures, as well as after care services will provide for improved health outcome and reduced pressure on the system.

Productivity

- **Improve provider productivity** - information technology will impact provider productivity in many ways, from ease of access to information to improved efficiencies (e.g. reduced call backs, reduced duplicate tests).
- **More efficient resource use** – solutions for scheduling will help managers optimize the use of scarce human and physical resources.
- **Improve coordination of care** - case management will allow a virtual team of providers to more easily coordinate the successful completion of a patient's treatment plan.

In order to capitalize on these benefits there is need to leverage and integrate information and communication technologies for wait time management with the pan-Canadian electronic health record infostructure currently being implemented across the country.

The additional information and communication technologies envisioned to better manage wait times will require investment in referral management, scheduling, case management and wait time monitoring and reporting systems as well as additional investment in location registry, physician electronic medical records and patient portal technologies. The pan-Canadian costs for wait time related information and communication technologies are estimated at approximately \$400 million, and the physician electronic medical record and patient portal costs are estimated at approximately an additional \$2.0 billion.

CONTENTS

1	Introduction	2
1.1	The Challenge of Health Care Renewal	2
1.2	Managing Wait Times is Very Complex	3
2	The Patient Journey and Wait Time Improvement Opportunities	4
2.1	A Hip Replacement Scenario	4
2.2	Standardized Assessment Tools	5
2.3	Order Entry and Results Reporting Tools	5
2.4	Advanced Scheduling Tools	5
2.5	Electronic Referral Tools	5
2.6	Case Management Tools	6
2.7	Provider Electronic Health Record Tools	6
2.8	Patient Electronic Health Record Tools	6
2.9	Wait Time Monitoring and Reporting Tools	6
3	The Information Technology Solution	7
4	The Implementation Strategy	9
4.1	Implementation Staging	9
4.2	Other Implementation Considerations	10
4.3	Costs	12
5	Benefits from a Wait Time Management Solution	13
5.1	Access	13
5.2	Quality	13
5.3	Productivity	13
Appendix A - Patient Journey Scenario		14
Appendix B - Patient Journey Flowchart		16

1 Introduction

1.1 The Challenge of Health Care Renewal

Over recent years, a broad consensus has emerged on the priorities for health care renewal in Canada. Building on seminal reports produced by the Honourable Roy Romanow, Senator Kirby, Messrs. Mazankowski, Clair and Fyke, the First Ministers' have identified key areas for improvement, including primary health care, home care, public health, health human resources, patient safety, pharmaceuticals, innovation, aboriginal health, accountability, as well as access and wait times. The 2004 Ten Year Plan to Strengthen Health Care further identified access to timely care across Canada as the biggest concern and a national priority.

Wait times in Canada are a symptom of the underlying challenges faced by the health care system as it strives to meet the increasing service demands of an aging population. The Ten Year Plan provides the national foundation for wait time improvement, while the recommendations from Romanow, the Health Council of Canada and others, set a stage for action that is directed at

- information and systems to better understand and manage wait times
- fair and effective distribution of resources to serve those waiting
- appropriate and effective use of health human resources
- coordination of the patient journey among many different clinicians and care settings

Access to accurate and complete health information to support clinical practice and patient management is fundamental to the success of health care renewal.

"Many of the health care reforms committed to by the First Ministers depend upon rapid transmission of accurate patient information among health care providers working in different locations.....Accurate patient information electronically transmitted in a timely fashion is a cornerstone of the future integrated system. Efforts to 'wire' the country need to be aggressively supported so that primary care providers can do their jobs."

Health Council of Canada, Health Care Renewal in Canada:
Accelerating Change, January 2005

All governments across Canada are making significant investments in creating a pan-Canadian health infostructure. This investment needs to be further leveraged to support and integrate all health care renewal activities, including the effective management of wait times. Failure to do so will result in a series of "silo" initiatives that will not provide full value that patients, clinicians and health care managers' desire.



Figure 1 – The integrating role of information and communication technologies in health care renewal

1.2 Managing Wait Times is Very Complex

Managing health and providing healthcare services can be viewed from the perspective of 3 key actors – the patient, healthcare providers (e.g. physicians) and healthcare managers (e.g. policy makers, administrators). Figure 2 depicts, at a summary level, the primary business processes for each actor, specifically:

- **the patient** – the processes to manage one's health
- **the healthcare provider** – the processes to provide healthcare services to patients
- **the healthcare manager** – the processes necessary to manage the healthcare delivery system

Wait times involves all three actors and are impacted by all their business processes. As a result, the management of wait times is very complex. It requires information and communication technologies that can effectively bridge patients, healthcare providers and healthcare managers so they can make informed decisions about accessing care, providing healthcare services and managing wait times. Information technology alone will not solve the problem of wait times. Redesign of healthcare provider business processes will be required. Information technology solutions will need to enable and support these new processes.

Figure 2 - Business context for wait time management

Patient	assess personal need	provide self care	receive healthcare services	monitor health and wellbeing	communicate with support network
Healthcare Providers	register and assess patient need	plan and schedule	provide healthcare services	monitor patient and evaluate plan	communicate with patient
Healthcare Managers	assess population health	research, plan and evaluate	deliver healthcare services	manage resources	communicate with stakeholders

Patients

Information and tools can empower patients to make informed decisions about accessing health care and coping with wait times

Providers

Information and tools enable clinicians to make informed decisions about referrals, tests, treatment and appropriate wait times

Managers

Information and tools enable managers to monitor wait times and implement strategies to effectively reduce them

2 The Patient Journey and Wait Time Improvement Opportunities

2.1 A Hip Replacement Scenario

To understand the complexity of wait times in detail requires an understanding of the patient journey through the Canadian healthcare system today. In this regard, a patient scenario has been developed for a fictitious patient, named Betty Smith. Betty is a 70 year old woman requiring a hip replacement who, 78 weeks after presenting with hip pain, receives the treatment she needs.

Betty's care is in the hands of many healthcare providers. The timing of her services is dependant upon a complex set of resource availabilities and priorities, managed by a diverse set of actors. Information is the common currency of all of these transactions, and Betty's case helps to illustrate the role that information and communications technologies can potentially play in improving wait times.

As the Canadian health care system has evolved "a number of concerns emerged, including: The disjointed way the various parts of the health care system worked with each other, often leaving patients to move between different providers and institutions."

Health Council of Canada, *Health Care Renewal in Canada: Accelerating Change*, January 2005

The Betty Smith scenario is based on an analysis completed by the Health Council of Canada in its document *Health Care Renewal in Canada: Accelerating Change, January 2005* which has identified 16 places where waiting occurs – see figure 3. In some cases waiting may be appropriate; in others, it may be unwarranted and possibly detrimental.

In addition, included in Appendix A, is the detailed patient journey scenario for Betty Smith and the associated flow diagrams detailing the journey and the opportunities where wait times can be improved.

The opportunities identified through the analysis of the patient journey are described as a set of tools for patients, providers and managers. Each of the 10 tools has process and workflow implications and potential impacts on wait times.

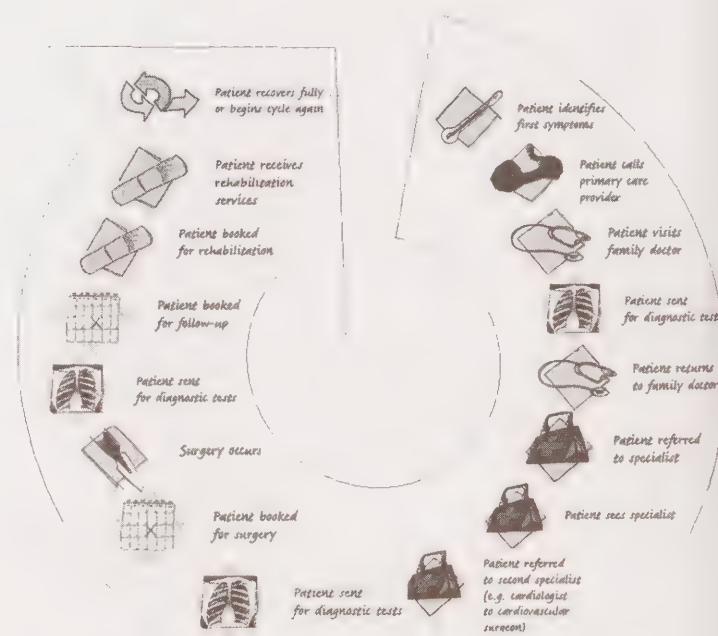


Figure 3 - The Health Council of Canada's Patient Journey

2.2 Standardized Assessment Tools

Physicians use a standardized assessment tool to determine the patient's need and relative priority level for referral and surgery. The assessment tool will have clinical decision support capabilities to assist the physician in planning treatment. The assessment will be integrated with the electronic health record and wait list management systems, allowing providers across the continuum of care to review and update the assessment to reflect changes in a patient's condition over time.

- ***Anticipated Improvement:*** Physicians can choose the most appropriate therapeutic strategy for the patient at that time. Specialists avoid inappropriate referrals. Patients who are most in need of care can be granted faster access to specialist, diagnostic and surgical services.

2.3 Order Entry and Results Reporting Tools

Physicians are able to order diagnostic tests electronically using computerized order entry and view the results through the electronic health record. Radiologists use the electronic health record to remotely review and report results.

- ***Anticipated Improvement:*** Physicians order diagnostic tests quickly and legibly. Physicians make clinical management decisions more quickly since the image is available to the radiologist immediately and the subsequent report can be accessed from the electronic health record as soon as it is posted.

2.4 Advanced Scheduling Tools

Patients' appointments with family practitioners, specialists, and specialty services are scheduled through an electronic scheduling application. Advanced scheduling features will help find the most appropriate appointment, enable complex scheduling tasks such as sequenced or clustered appointments, schedule resources across organizations and include no-show functionality, such as reminders. Centrally coordinated scheduling could also be enabled if required to fit jurisdictional plans to rationalize resource use across a jurisdiction.

- **Anticipated Improvement:** Patients receive more timely and appropriate appointments and multiple appointments are more streamlined. Patient schedules are transparent, improving satisfaction. Providers avoid empty slots, as patients are reminded of appointments and those who habitually miss appointments are identified. Health care managers are able to effectively spread demand across available resources and reduce overall wait times. Patients move more quickly to post-operative services, rehabilitation and home care, freeing acute care capacity

2.5 Electronic Referral Tools

Physicians create referrals using an electronic referral template, which contains a minimum data set of key information about the patient needed for referral. The referral is transmitted electronically, either to a referral service function, or to the specialist directly. The specialist uses an electronic referral response, allowing him or her to accept, decline it or revise the referral.

➤ **Anticipated Improvement:** The specialist saves time, by receiving legible, specified information necessary to both triage the patient and assist the specialist during the

consultation. The physician and patient receive feedback quickly about the case; and can either prepare for the specialist visit or use the feedback in continuing to manage the patient's condition.

2.6 Case Management Tools

All providers involved in a patient's case can develop, review and coordinate his or her treatment plan and the related scheduled events. Case management tools will assist providers in streamlining tasks across an episode of care, and will support the development of treatment plans which make the most effective use of high demand provider time. . A case also holds key documents related to a treatment plan.

- **Anticipated Improvement:** Providers save time by easily monitoring cases, and by having effective use made of their services. Patients' treatment plans are more streamlined and available to all relevant clinicians, reducing the overall wait time while improving the efficiency of healthcare delivery. Cases may be prioritized for access to high demand services.

2.7 Provider Electronic Health Record Tools

Providers across the continuum of care can access relevant healthcare information. Assessment results, diagnostic test results, medication profile, medical history and other clinical information are available to clinicians, as appropriate.

- **Anticipated Improvement:** Providers can easily access a complete and current history on the patient. Providers save time searching for information. Physicians avoid duplicating diagnostic tests, which also avoid delays in treatment.

2.8 Patient Electronic Health Record Tools

Patients can access all details regarding their health record and their care, including medical history and scheduled events. Patients also have access to resources to self-manage including disease information, support services and information about wait times in their jurisdiction.

- **Anticipated Improvement:** Patients' treatment plans are transparent and they are well informed and supported, so they can actively participate and are better positioned to deal with wait times. Patients also have access to resources to self-manage including disease information, support services and information about wait times in their jurisdiction.

2.9 Wait Time Monitoring and Reporting Tools

Waiting times at a procedure, surgeon and individual level (from primary care through rehabilitation) are available and reported as appropriate. The waiting list can be reviewed and physicians are automatically alerted to inappropriate wait times or cases in need of re-assessment.

- **Anticipated Improvement:** Patient's whose wait will be too long are identified and can be addressed. Physicians and health care managers have the information they need to plan and manage the system. Patients have more information about waits, and are better equipped to self-manage.

3 The Information Technology Solution

The opportunities for improving the patient journey by reducing wait times and ultimately supporting healthcare renewal can only be realized by implementing a broad vision for a pan-Canadian health infostructure. All jurisdictions, supported by Canada Health Infoway investments are making significant progress in this regard by laying the technology foundation to successfully deploy the tools necessary to improve wait times.

The wait time information and communications technology architecture is simply an extension of the pan-Canadian electronic health record infostructure being deployed across Canada today and consists of:

Registries Data and Services –

client, provider, location and terminology registries.

EHR Data and Services – diagnostic imaging, laboratory, drug, hospital, communicable disease and immunization data.

Health Information Data Warehouse – for retrospective analyses and reporting.

Wait Time Data and Services – referral management, scheduling, case management, wait time monitoring and reporting.

HIAL and Longitudinal Record Services – communications network, common services like consent and security and longitudinal record services to support the sharing of records across the continuum of care.

Point of Service Applications –

the software used by healthcare providers, including information systems in hospitals, diagnostic centres, laboratories, pharmacies, specialist's clinics and physician offices. This would include point of service applications specific to wait time management, such as case management and scheduling.

EHR Viewers – the software that easily allows clinicians to view the electronic health record if they have no means to do so – typically via a provider portal. EHR viewers are also available as a portal for the patient to view their electronic health record.

By leveraging the pan-Canadian electronic health record infostructure all jurisdictions across Canada will be able to significantly lower the total cost of ownership of adding wait time management data and services.

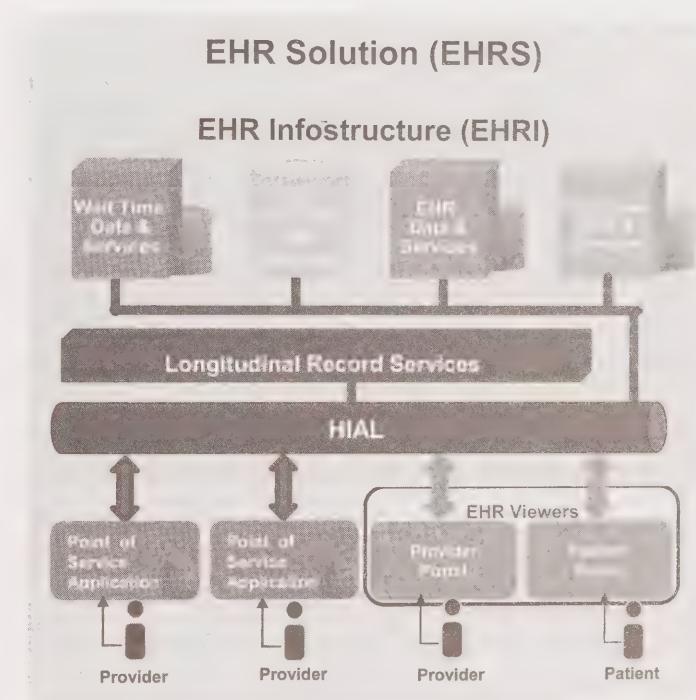


Figure 4 – Wait Time Solution Architecture

When viewed at the next level of detail (see figure 5) the wait time solution architecture starts to reveal the technical complexities associated with managing wait times and the interfaces with electronic medical records for all providers which support primary care reform, drugs and patient safety, public health surveillance, and to date some limited wait time management..

For a provider, patient or healthcare manager to utilize any one of the proposed tools for improving wait times, data will need to be sourced from multiple repositories in the registries services, the electronic health record services, as well as the wait time management services. That data will then be transported through a common network to point of service applications that will be used by the provider (e.g. a physician office electronic medical record), a patient (e.g. a patient portal) and a healthcare manager (e.g. wait time monitoring and reporting).

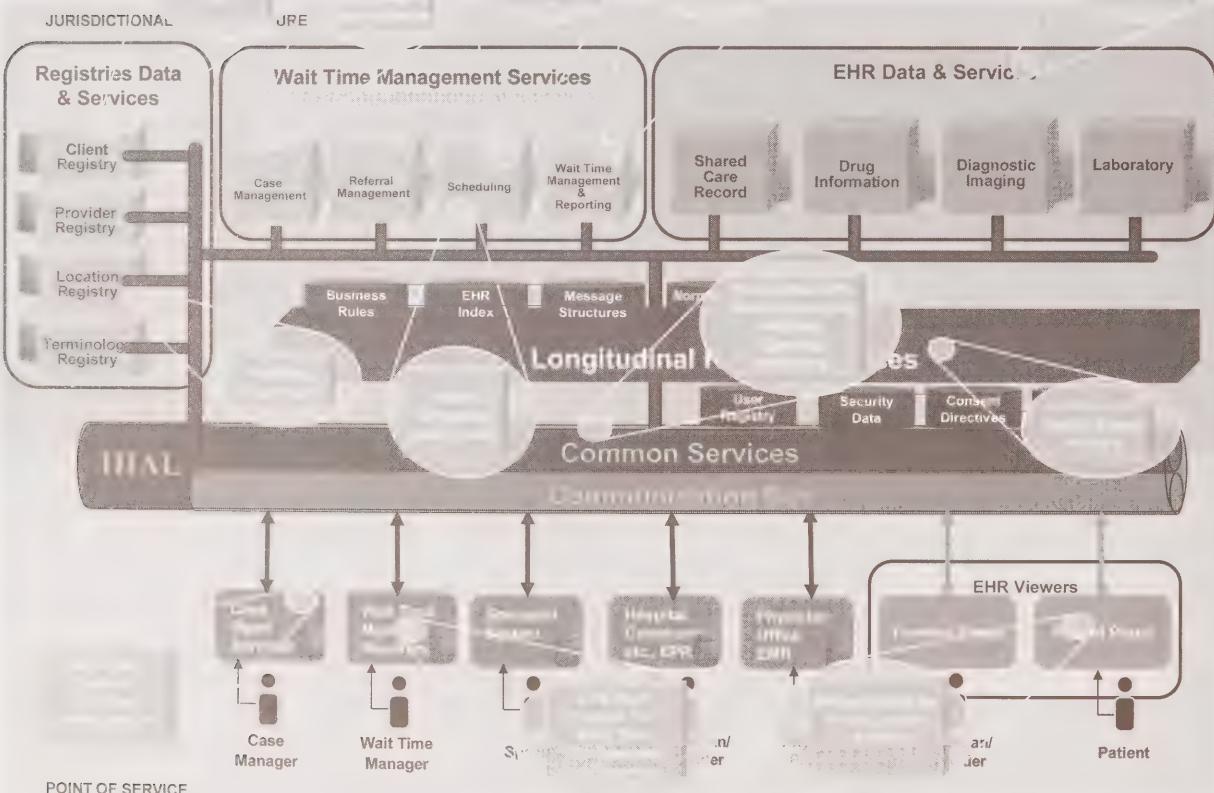


Figure 5 - Electronic health record infostructure with wait time management

4 The Implementation Strategy

Deploying interoperable wait time management solutions as part of a pan-Canadian electronic health record infostructure has to be based on a common technology architecture. That architecture exists today as the Infoway EHRS Blueprint and has been adopted by every jurisdiction across Canada.

4.1 Implementation Staging

The implementation of a pan-Canadian interoperable wait time management solution can be achieved in five steps

Step 1: Requirements Definition - all jurisdictions working collaboratively to create a common set of functional and technical requirements for the wait time management solution. This will take 6 months.

Step 2: Standards Definition – develop the national interoperability standards for wait time management. It is anticipated that these standards will be based on the HL7v3 messaging format leveraging work already completed by the National Health Service in England. This will take 6-9 months.

Step 3: National Reference Solution – develop a reference solution that can meet the functional requirements of all stakeholders and support the interoperability requirements with the pan-Canadian electronic health record infostructure. The reference solution will likely consist of a mixture of commercially available solutions (e.g., case management, referral management, scheduling, electronic medical records) and some custom components (e.g. implementation of wait time management and reporting), all integrated into a complete system.

Step 4: Jurisdiction Planning and Implementation – the national reference solution provides a “menu” of components that can be used, as needed, by each jurisdiction. Each province will establish their priorities and select the best approach to implementing the national reference solution, in whole or in part. In this way, legacy systems in a jurisdiction can still be fully leveraged when there is no requirement to have them replaced.

Given the size and complexity of the wait time management it is likely the reference solution will be implemented in an iterative approach over 2-3 years.

➤ **Prototype demonstrations (<6 months):**

Demonstrate working prototypes, leveraging existing initiatives that can show in part the improvements in wait times that are possible through the use of information and communication technologies

➤ **First iteration (12-18 months):**

1. Location Registry
2. Case Management – core functions
3. Physician EMR – limited initial rollout
4. Wait Time Reporting
5. Integration of physician EMR, case management, wait time reporting, location registry and the electronic health record

➤ **Second iteration (18-24 months):**



1. Case Management – enhanced set of functions
2. Referral Management – initial set of functions
3. Physician EMR – accelerated rollout
4. Integration of referral management with case management, physician EMR, wait time reporting, location registry and the electronic health record

➤ **Third iteration (>24 months):**

1. Referral Management – complete set of functions
2. Centralized Scheduling – complete rollout
3. Physician EMR – complete rollout
4. Patient Portal – complete rollout
5. Integration of centralized scheduling and patient portal with referral management, case management, physician EMR, wait time reporting, location registry and the electronic health record

Step 5: Evaluation – after 2-3 years in production the wait time management system needs to be evaluated in terms of the results (i.e. and the benefits (i.e. implementation, integration, interoperability, utilization and sustainability) and the benefits (i.e. the measured impact on access, quality and productivity).

4.2 Other Implementation Considerations

Achieving the desired impacts and benefits will require a number of implementation initiatives beyond the procurement and installation of the technology solution. For example, the end-users – providers, patients and managers - must adopt the solution and use it effectively. This will require a significant change management program be put in place.

The following additional initiatives will support jurisdictions with successful implementation.

Collaborative Leadership

The implementation of a pan-Canadian wait time management system will require strong collaborative leadership from all jurisdictions within a national forum. There is an opportunity to implement a single integrated bilingual wait time management system (i.e. there may be many instances of the single solution) across Canada. The initiative requires participation from a diverse mix of actors – family physicians, specialists, administrators, patients, as well as information technology professionals – for it to be successful. Each jurisdiction has a senior governance group for jurisdiction-wide information systems and it is anticipated that these groups would continue to provide leadership within the province or territory.

Process Redesign

The proposed systems will need to accommodate process flexibility. For example jurisdictions will use a combination of referral processes – referral to a provider and/or referral to a service. Some of the long-term objectives may require complete process redesign. These present an opportunity for tailoring information systems not just to wait time management but also to support improved healthcare delivery and national initiatives like primary care reform.

Physician Engagement

This solution must provide physicians, as well as other providers and their support staff with tools that meet their needs. Changing referral and scheduling processes may involve a significant change in business practice. The information technology solution must be tailored



to these new business practices. Full physician leadership and engagement throughout these steps is critical if the initiative is to be successful.

Physician Office Systems

To enable the full range of wait time management services to be implemented requires that physician offices have local electronic medical record systems. These systems will be integrated into the electronic health record infostructure and are certainly a key component to improving the referral management, case management processes and scheduling processes. Where physicians do not have an electronic medical record system, or where the electronic medical record system cannot send/receive standard messages to/from the electronic health record infostructure then a physician has the option to use an Electronic Health Record Viewer. This will provide the physician with the ability to retrieve a patient's electronic health record for viewing only. Some vendors have extended their Electronic Health Record Viewer products to carry out basic case management and referral management

Hospital and Diagnostic Clinic Information Systems

To integration of Hospital Information Systems (e.g. tertiary, community and Children's hospitals) in acute care facilities and diagnostic clinics (e.g. DI clinics) is also a fundamental requirement for a wait time management strategy to be successful. At a minimum this includes integration with registration systems (e.g. hospital ADT systems) to the jurisdiction client registry and the integration of enterprise scheduling systems with hospital and clinic scheduling systems (e.g. OR booking systems). All are complex undertakings.

Change Management

Change management is a proactive, systematic process to achieving defined outcomes. To maximize "value", the change process needs to be effectively designed, planned, managed and sustained to ensure a solution is effectively used by relevant providers, patients and managers alike. It is a best practice to rollout new processes, business practices and systems concurrently.

Privacy and Security

Health information privacy is an important issue in wait time management – it involves identifiable health information. The electronic health infostructure, including the privacy and security components of it have been defined in detail and it supports the health information privacy legislation in place across Canada (e.g. different rules for managing consent). The wait time management solution would leverage this infostructure, rather than building it from scratch.

Policy / Legislation

This wait time management solution, and the initiatives which it supports (wait time reduction, primary care reform and healthcare renewal in general) may require policy and/or legislation changes.

Electronic Health Record Infostructure

The wait time management solution needs to leverage the electronic health record infostructure that is being implemented in every jurisdiction. To re-create this infostructure, in whole or in part, would not be a duplicate investment. Jurisdictions are at different stages in the implementation of this infostructure, and either have it already in place today or will have it available in the next 3 years. The development of the wait time management system can occur in parallel with the implementation of the electronic health record infostructure.

4.3 Costs

The pan-Canadian costs for a wait time management system are estimated at \$401 million. The more significant costs are for the physician electronic medical record and the patient portal, together estimated at \$2.014 billion.

\$ Millions	Software	Hardware	Integration	Implementation	Standards	Change Mgmt	Total
Electronic Referral	20	8	8	14	2	15	68
Scheduling Services	30	12	13	21	2	23	100
Case Management	30	12	13	21	2	23	100
Wait List Reporting	20	8	8	14	2	15	68
Location Registry	25	10	11	18	2	0	65
Wait Time Sub-Total	125	50	53	88	10	76	401
Patient Portal	30	12	13	21		23	98
EMR Systems	588	294	368	221	5	441	1,916
GRAND Total	743	356	433	329	15	539	2,415

The following assumptions were used in costing:

- An electronic health record Infostructure is in operation in all jurisdictions and are not included in the costs
- Hospitals are connected to at least one electronic health record service
- Implemented technology will leverage current wait time management solutions
- Hospital information systems, operating room and clinic scheduling systems are not included in the costs
- Upgrades to existing hospital information systems are not included in the costs

The costing methodology combines hardware and software cost estimates from project budgets and vendor input, with industry-standard cost ratios for integration, implementation, standards and change management.

5 Benefits from a Wait Time Management Solution

Information systems in support of wait time initiatives and broader healthcare renewal objectives are a critical tool for achieving a measurable reduction in wait times. Specific benefits include:

5.1 Access

- **Support timely delivery of care** - solutions to improve referral and scheduling processes and overall case management will help providers decrease the overall time between identification of need and treatment.
- **Support equitable distribution of care** - solutions for prioritization of resource usage will help ensure that care is delivered appropriately on the basis of need.

5.2 Quality

- **Improve appropriateness of care** - standardized assessment and wait time prioritization will help providers ensure that the wait time is appropriate for the patient.
- **Improve effectiveness of care** – more timely access to physicians, specialists, diagnostic tests, surgical procedures, as well as after care services will provide for improved health outcome and reduced pressure on the system.

5.3 Productivity

- **Improve provider productivity** - information technology will impact provider productivity in many ways, from ease of access to information to improved efficiencies (e.g. reduced call backs, reduced duplicate tests).
- **More efficient resource use** – solutions for scheduling will help managers optimize the use of scarce human and physical resources.
- **Improve coordination of care** - case management will allow a virtual team of providers to more easily coordinate the successful completion of a patient's treatment plan.



Appendix A - Patient Journey Scenario

Patient Scenario

1. Betty Smith is a 70 year old woman. She lives with her husband, John, in a rural town about 2 hours from the nearest city. Betty was diagnosed with type II diabetes and hypertension about 5 years ago and has been managed by her family physician, Dr. Leblanc. Betty's husband John, 75, had a stroke last year and she has become the primary care giver for him. In her spare time, Betty likes to bake, bowl and play bingo.
2. Betty has noticed increasing pain in her left hip. She has had the pain off and on for at least a year, but it has become worse over the last three months. It has reached the point where she is having difficulty bowling and looking after John. She has been taking acetaminophen, but this has had little effect. Betty decides that it is time to get in to see Dr. Leblanc. She calls his office to make an appointment and is scheduled for three weeks later. Betty keeps her appointment with Dr. Leblanc. He takes a history and does a physical examination and determines that she likely has osteoarthritis in the hip.
3. Dr. Leblanc prescribes a non-steroidal anti-inflammatory medication and orders an x-ray. Betty presents for her x-ray at the local community hospital later that day. Dr. Leblanc receives the x-ray report three days later. The radiologist noted advanced arthritic changes in the hip joint but also queried a stress fracture.
4. Dr. Leblanc chooses to order a CT scan to determine if a stress fracture is present. He calls Betty to inform her of the finding and the upcoming CT scan and has his receptionist book the scan. Betty is notified of her appointment date by the Diagnostic Imaging department of the nearest city's hospital. The CT scan will be done in four weeks. Betty has her CT scan on the appointed date. The radiologist reviews the images and generates her report. That day, Betty books an appointment to follow up with Dr. Leblanc in five days.
5. Betty returns to see Dr. Leblanc. He informs her that there is no stress fracture, but there are advanced arthritic changes in the left hip joint. He counsels her about osteoarthritis and they discuss her treatment options. Betty wants to try the medication and work harder on losing some weight. Over the next three months Betty notices a progression of her pain. She has been unable to lose any weight and the anti-inflammatory medication upset her stomach. She is now losing sleep because of pain, has had to stop bowling and is struggling to help John with his daily care. She calls for an appointment with Dr. Leblanc and is booked in for one week later.
6. Dr. Leblanc and Betty discuss her symptoms and they decide to refer her to an orthopedic surgeon to consider joint replacement surgery. Dr. Leblanc prepares a referral letter to Dr. Os, which is faxed later that day. Two months later Betty receives a call from Dr. Os' office informing her that her appointment will be in three months.

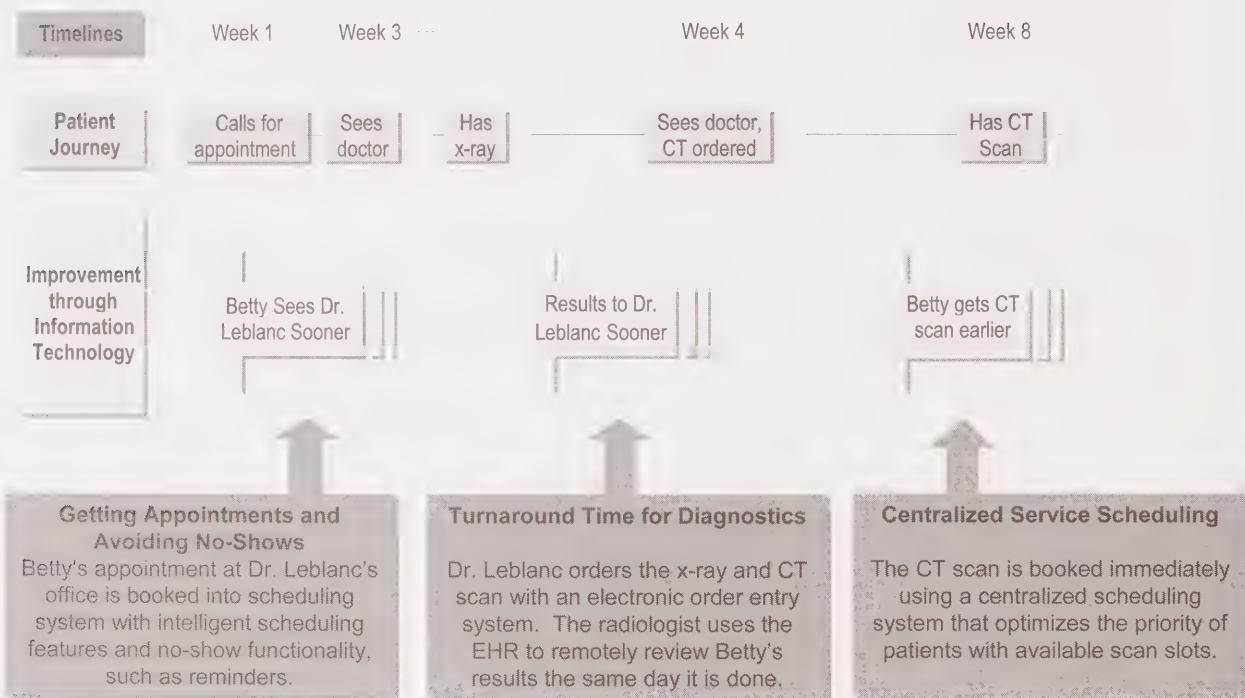


7. Betty sees Dr. Os at the scheduled time at the hospital outpatient clinic. He reviews her history and does a physical examination. He chooses to repeat her x-rays and reviews the films. Dr. Os discusses surgical treatments with Betty and they decide to proceed with total hip replacement. Dr. Os has his nurse book the procedure with the Operating Room booking office. The procedure is not booked immediately; Betty will wait two months to receive a procedure date an additional seven months away. Because of Betty's diabetes, Dr. Os also refers her to the diabetes clinic for a pre-operative assessment.
8. Four weeks later Betty attends the diabetes clinic. She is assessed by an internist, a dietician and a diabetes teaching nurse. A number of lab investigations, including fasting blood sugar, HbA1C and an EKG are ordered and Betty is to return in two weeks. Betty returns to the diabetes clinic in two weeks. The internist reviews her lab results and her home glucose testing values. She makes some minor changes to the doses of the medications and arranges to follow Betty while she is in hospital. Betty returns periodically for follow-up.
9. About six months later Betty receives a call from the hospital asking her to come to the Pre-Admission Clinic for her pre-operative assessment. The anaesthetist reviews Betty's history along with the information from the Diabetes clinic. Betty goes for her Hip surgery on the appointed date. The procedure goes very well and she progresses through her rehabilitation in hospital. Prior to her discharge the rehabilitation team decides Betty will require home care and orders it for her.



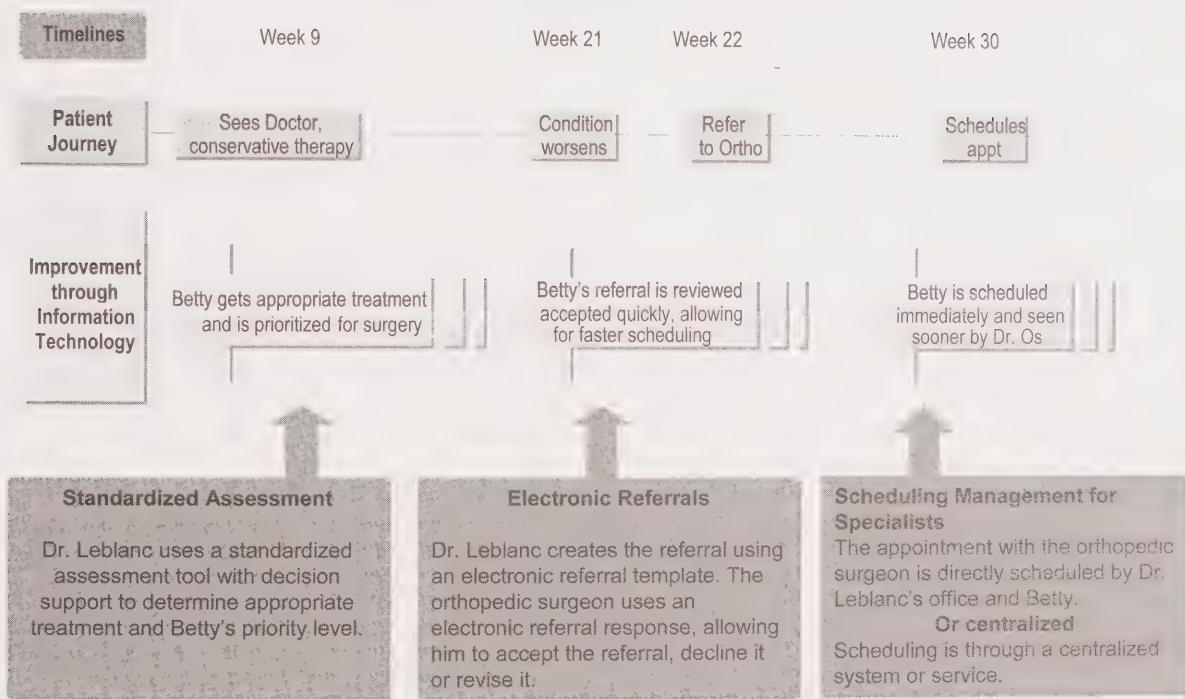
Appendix B - Patient Journey Flowchart

Improving the Journey: Week 1 to Week 8



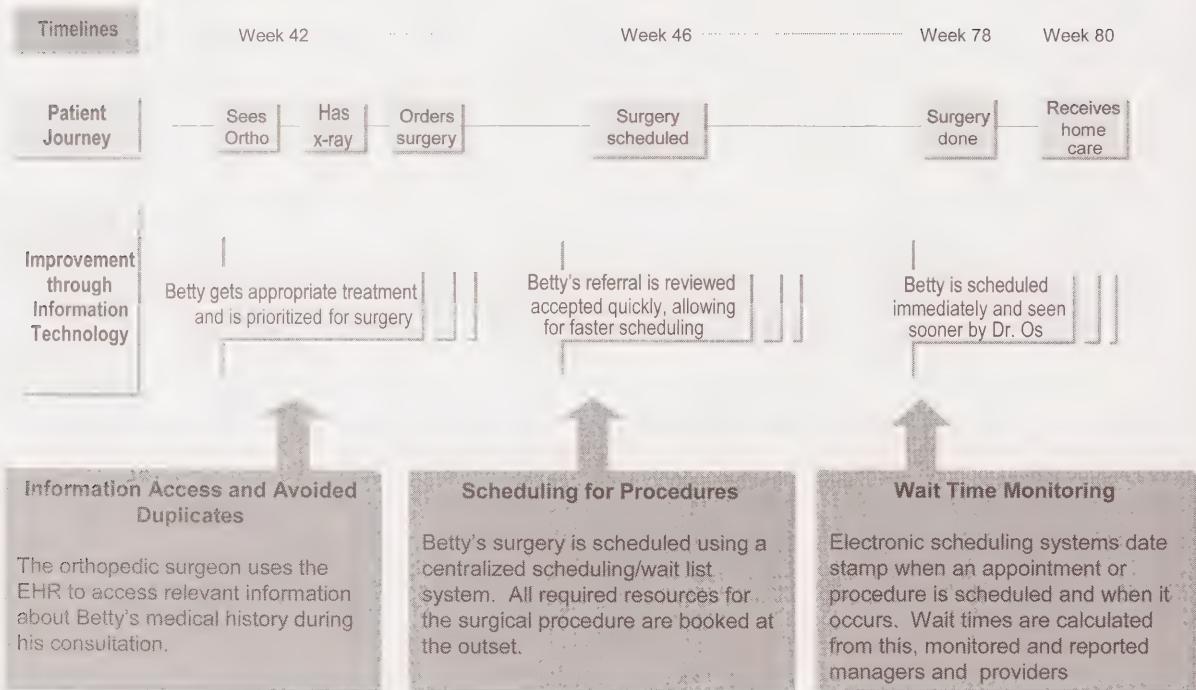
Appendix B Continued

Improving the Journey: Week 9 to Week 30



Appendix B Continued

Improving the Journey: Week 42 to Week 80



National Paediatric Surgical Wait Times Strategy: Access Targets

The National Child and Youth Health Coalition (NCYHC)

The National Child and Youth health Coalition is a coalition of the following five organizations who work collaboratively to advance the health and healthcare of children and youth across Canada:

- The Canadian Association of Paediatric Health Centres
- The Canadian Child Health Clinician Scientist Program
- The Council of Canadian Child Health Research
- The Paediatric Chairs of Canada
- The Paediatric Surgical Chairs of Canada

Objectives of the NCYHC Paediatric Surgical Wait Times Strategy

The NCYHC Paediatric Wait Times Strategy is the outcome of a National Consensus Workshop held in February 2006. Representatives from all sixteen paediatric academic health centres across Canada came together and unanimously endorsed a framework and methodology to establish national access targets for ten paediatric surgical subspecialties. Drawing from a national pool of experts, the Strategy builds on the collective work of provincial groups across Canada and is fashioned after the model developed by the Ontario Children's Health Network (OCHN).

The Strategy sets out to:

- Establish national access targets for ten paediatric subspecialties
- Determine the current wait time "burden" i.e. the number of children across Canada who are not receiving care within the established access targets
- Develop strategies to optimally manage wait times
- Assess the system's capacity to provide timely care and
- Develop resource allocation recommendations

The following principles guide the Strategy:

- The Children's Strategy must aim to make system – wide changes for the betterment of surgical services for children and their families
- The Children's Strategy must be designed to complement and leverage the adult wait time strategy
- The Paediatric Surgical Wait Times Strategy should serve as a model for evaluating and addressing wait times in non-surgical specialties for Canada's children and youth

The Strategy Framework

Workshop delegates unanimously endorsed the framework and methodology developed by OCHN and described below. They further recommended that the OCHN access targets (refer to Appendix: OCHN Access Targets) serve as the basis for national standards and that a national consultation be undertaken to address any refinements required for national adoption.

The OCHN model establishes access targets for approximately 350 diagnoses within nine subspecialties: Cardiovascular Surgery, General Surgery, Gynaecology, Neurosurgery, Ophthalmology, Orthopedics, Otolaryngology, Plastic Surgery and Urology. Table 1 outlines the major areas where access targets have been developed. The National Workshop delegates recommended adding a tenth subspecialty – Oral Surgery. A process is currently underway to establish consensus access targets for this subspecialty.

Table 1: Major categories having access targets within the nine subspecialties

Paediatric General Surgery	Paediatric Gynaecology
Neonatal Conditions Thoracic Neonatal conditions Abdominal Wall Colon, Rectum, Anus Esophagus Stomach, Duodenum, Small Bowel Solid Tumors Neck Mass Trauma Care Biliary System and Spleen Genitalia	Adolescent Pregnancies Vulva, Cervix, Vagina Gynaecological Congenital Anomalies Genital Trauma Ovaries Ante-natal Care for Adolescent Pregnancies Solid Tumors Miscellaneous Procedure
Paediatric Neurosurgery	Paediatric Ophthalmology
Developmental Malformations : Spine, Brain Structures, Craniofacial, Vascular Intracranial Cyst and Abscess Brain Tumors Cerebro-Spinal Fluid Build-up Skull Tumor Epilepsy and Spasticity Trauma	Strabismus Oculoplastics: Lacrimal Surgery, Eyelid, Orbital Surgery Anterior Segment Cornea Retinal Surgery Glaucoma
Paediatric Orthopedic Surgery	Paediatric Otolaryngology
Disorders of the: Hip, Spine, Upper Extremities, Lower Extremities, Feet Minor Variants of Normal Bone and Joint Infections Fractures Skeletal Displasias Musculoskeletal Tumors Other	Disorders of the Airway Neck Mass Sino-Nasal Disorders Salivary Gland Disorders Otologic Surgery Disorders of the Head and Neck
Paediatric Plastic Surgery	Paediatric Urology
Clefts Burns Congenital Hand and Upper Extremity Soft Tissue and Skin Conditions Craniofacial Trauma Ear Solid Tumors Miscellaneous	Urinary Incontinence Renal/Bladder Anomalies Genital Anomalies Urinary Tract Calculi Solid Tumors Genitourinary Trauma Inguinal Pathology (non-malignant) Miscellaneous
Paediatric Cardiovascular Surgery (50 diagnoses)	

Priority rating system and diagnostic themes

Sub-specialty access targets are based on:

- A priority rating system and
- Diagnostic themes within each subspecialty.

A seven grade priority rating system developed to address the specific needs of the paediatric population will be used. This system is flexible as it can be truncated into a four grade scale that is consistent with grading for many adult wait time initiatives.

Priority Classification Level	Access Target Time Frame
Priority I	<i>within 24 hours</i>
Priority IIa	<i>between 24 hours and 1 week</i>
Priority IIb	<i>between 1 to 3 weeks</i>
Priority III	<i>within 6 weeks</i>
Priority IV	<i>within 3 months</i>
Priority V	<i>within 6 months</i>
Priority VI	<i>within 12 months</i>
All cases	<i>Within 18 months</i>

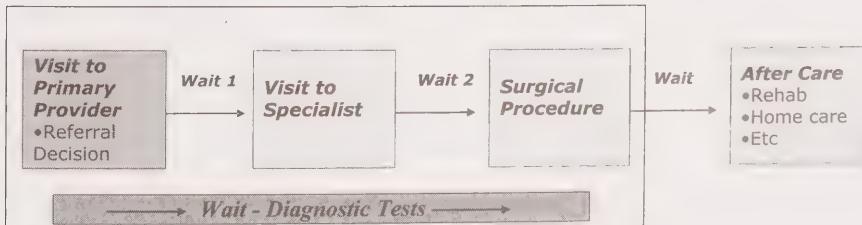
The Strategy Methodology

Multiple wait times

The national paediatric surgical wait times strategy focuses on two critical wait times, W1, the time period between referral from primary provider to surgeon and W2, the time period between the decision by surgeon and family to proceed with surgery and the actual surgical procedure.

A comprehensive Paediatric Surgical Wait Times Strategy will require developing standards for two other critical “wait times”. These will be addressed at a later date:

1. The wait time for diagnostic procedures at the stage of primary care or specialty consultation and
2. The wait time for after care services



Access targets are then based on diagnostic themes within each subspecialty. There are several advantages of this approach. First, the diagnosis is the basis of referral for consultation and the most appropriate determinant of waits. Second, diagnosis is easily understood and agreed upon by the surgical specialties. Finally, diagnosis is less prone to manipulation in any waiting list management system. Including all sub-specialties and diagnostic themes within the strategy has

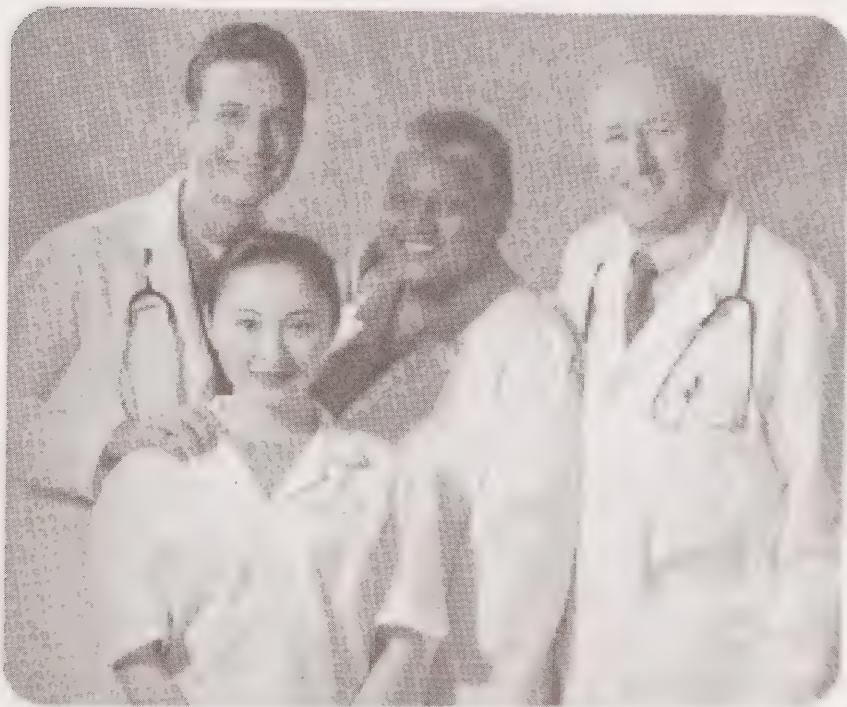
an additional advantage: It provides a basis for monitoring whether or not any subsequent strategies to address waiting times compromise one aspect of care for the sake of another.

The appended attachment **“Ontario Paediatric Surgical Wait Time Access Targets – Ontario Children’s Health Network”** details the access targets for the approximately 350 diagnoses contained within the nine subspecialties.

THE POWER OF COLLABORATION



Pan-Canadian Health Human Resource Strategy



Background

People are the health care system's greatest asset. Canada's ability to provide access to "high quality, effective, patient-centred and safe" health services depends on the right mix of health care providers with the right skills in the right place at the right time. The sustainability of Canada's Health Human Resources (HHR) is an issue which has received significant attention in recent years. Canada's HHR are facing a constantly evolving health care landscape in which factors such as an aging population and workforce, new technologies, and health care reforms are all contributing to the need for change.

Through recent health care accords, First Ministers have repeatedly stressed the need for appropriate planning and management of HHR in order to ensure that Canadians have access to the health care providers they need. Through the 2003 Budget \$20M was provided, annually, on an ongoing basis. These funds have formed the foundation for Health Canada's Pan-Canadian Health Human Resource Strategy. Additionally, the First Ministers Agreement of 2004 provided further support through a commitment to accelerate and expand the assessment and integration of internationally educated health care professionals. Budget 2005 provided \$75M over five years to support integration of internationally educated health care professionals.

Over the past year, Health Canada has worked collaboratively with other federal departments, provincial/territorial (P/T) governments, professional associations and a range of stakeholders across sectors to advance HHR issues.

Strategy

Health Canada and its stakeholders have begun work to address the many challenges our country faces with respect to HHR within three broad components:

- Pan-Canadian HHR Planning;
- Interprofessional Education for Collaborative Patient-Centred Practice; and
- Recruitment and Retention of Health Care Providers

Health Canada is also playing a lead role to deliver programs to facilitate the integration of internationally educated health care professionals with a focus on the following priority groups:

- International medical graduates;
- Internationally educated nurses; and
- Internationally educated pharmacists, physiotherapists, occupational therapists, medical radiation technologists, and medical laboratory technologists.

Current Situation

Pan-Canadian HHR Planning:

In recent years, it became clear that there was a need to change the traditional method of HHR planning in Canada, which had limited collaboration between federal/provincial/territorial (F/P/T) governments with respect to addressing the supply and demand issues of Canada's health care workforce as well as improve data sources, forecasting models and research.

The Pan-Canadian HHR Planning Initiative seeks to address the above issues by achieving the following objectives:

- enhance and strengthen the evidence base and capacity for coordinated HHR planning to better support F/P/T, jurisdictional and nation wide activities; and
- create a culture in which key HHR issues of jurisdictional, inter-jurisdictional and pan-Canadian concern can be identified and addressed.

One of the key successes over the past year is the agreement by the federal, provincial and territorial Ministries of Health on a Framework for Collaborative Pan-Canadian Health Human Resources Planning.

Interprofessional Education for Collaborative Patient-Centred Practice:

Recent trends towards interprofessional team based care suggest that the roles and responsibilities of various health care providers are evolving. Changing the way we educate health care providers is key to achieving system change and to ensuring that health care providers have the necessary knowledge and skill to work effectively in interprofessional teams within the evolving health care system.

The IECPCP initiative seeks to enhance interprofessional patient-centred practice by accomplishing the following objectives:

- promote and demonstrate the benefits of interprofessional education for collaborative patient-centred practice;
- increase the number of educators prepared to teach from an interprofessional collaborative patient-centred perspective;
- increase the number of health professionals trained for patient-centred collaborative practice before, and after, entry-to-practice;
- stimulate networking and sharing of best educational approaches for collaborative patient-centred practice; and
- facilitate interprofessional collaborative care in both the education and practice settings.

Through the Interprofessionally Educated Patient-Centred Practice Initiative Health Canada has funded 11 projects for a total of \$13M and has developed a framework for interprofessionally educated patient-centred practice.

Recruitment and Retention:

There are current and impending imbalances in the supply of health care providers across a wide variety of disciplines. As the health workforce continues to age, demand for services increases, and the workplace becomes increasingly global, the need to appropriately recruit and retain HHR becomes progressively more essential. This need is often emphasized in more remote geographical areas of Canada where undersupply of providers is a significant challenge. This imbalance threatens the system's capacity to deliver health services to Canadians. The Recruitment and Retention Initiative seeks to address these issues by accomplishing the following objectives:

- increase interest in health careers, both generally and in specific areas of shortage;
- increase diversity of health care providers to reflect the Canadian mosaic;
- increase the supply of health care providers to ensure availability, when and where needed;
- reduce barriers for internationally educated health care providers;
- improve utilization and distribution of existing health care providers; and
- make current workplace environments healthier for health care workers and in doing so, support the provision of high-quality care.

Health Canada has funded a national “Healthy Health Care Provider Advocacy Campaign” in collaboration with the Canadian Medical Association, Canadian Nurses Association, and the Canadian Medical Foundation to highlight the contributions made by health care providers in improving the lives of Canadians.

Health Canada’s Healthy Workplace Initiative was created to support actions by local initiatives that precipitate improvements in the short-term in one or more of the following areas: work environments; health and well-being of health care workers; and job satisfaction and quality of work life.

This is based on the fact that healthy work environments contribute to positive outcomes for workers and to improved health service quality, cost-effectiveness, and workforce renewal. Progress depends on addressing symptoms of unhealthy workplaces; focusing on how front-line patient care or related health services are provided.

Through the Healthy Workplace Initiative, Health Canada has funded 11 projects to address the work environment in health care organizations across the country.

Internationally Educated Health Care Professionals (IEHPs):

Recent trends towards interprofessional collaborative care suggest that the roles and responsibilities of various health care providers are being clarified. Changing the way we educate health care providers is key to achieving system change and to ensuring that health care providers have the necessary knowledge and training to work effectively in interprofessional teams within the evolving health care system. There is growing consensus that interprofessional collaborative patient-centered practice - across all health sectors and along the continuum of care - will contribute to the following:

- improved population health / patient care;
- improved access to health care;
- improved recruitment and retention of health care providers;
- improved patient safety and communication among health care providers;
- more efficient and effective employment of health human resources; and
- improved satisfaction among patients and health care providers.

The Interprofessional Education for Collaborative Patient Centred Practice (IECPCP) initiative has the following objectives:

- promote and demonstrate the benefits of interprofessional education for collaborative patient-centred practice;
- increase the number of educators prepared to teach from an interprofessional collaborative patient-centred perspective;
- increase the number of health professionals trained for patient-centred collaborative practice before, and after, entry-to-practice;
- stimulate networking and sharing of best educational approaches for collaborative patient-centred practice; and
- facilitate interprofessional collaborative care in both the education and practice settings.

Through the IECPCP initiative, Health Canada has funded a variety of initiatives in all jurisdictions, including complimentary projects.

Aboriginal Health Human Resources:

Health Canada has a unique relationship with First Nations and Inuit communities in working closely with them to enhance their health services and improve their health. This is an ongoing commitment of the federal government, resulting from a series of reports and commissions on Aboriginal health.

Health Canada's First Nations and Inuit Health Branch (FNIHB) works to ensure that First Nations and Inuit health care needs are addressed and, where possible, integrated into larger pan-Canadian strategies. FNIHB is directly responsible for implementing the HHR Strategy from a First Nations and Inuit perspective and seeks to accomplish the following goals:

- ensure that the current and future supply, mix and distribution of First Nations and Inuit HHR are optimized and respond to the needs of First Nations and Inuit through a coordinated approach to HHR planning;
- achieve and maintain an adequate supply of qualified health care providers who are appropriately educated, distributed, deployed and supported, to ensure culturally appropriate and safe health care services are available to First Nations and Inuit;
- increase the number of First Nations and Inuit entering into health careers, and the number of health care providers working in First Nations and Inuit communities;
- ensure that First Nations and Inuit HHR data collection is ongoing, coordinated and systematic, and that the process involves First Nations and Inuit organizations; and
- promote interprofessional education for health care workers and collaborative patient-centred practice that addresses the holistic health care needs of First Nations and Inuit.

Challenges

There are a number of challenges facing Health Canada's Pan-Canadian Health human Resource Strategies. The success of the strategy relies on the commitment of federal, provincial and territorial governments as well as stakeholders to work together collaboratively to ensure that Canadians have the right mix of health care providers with the right skills in the right place at the right time.

Some of the critical challenges that lay ahead include:

- strong leadership and adequate resources in order to ensure effective change;
- clear understanding of roles and responsibilities;
- a focus on cross-jurisdictional issues;
- facilitating a change in system/organizational culture;
- ensuring the flexibility required to be responsive to individual jurisdictional needs; and
- acting on the current health human resource needs while monitoring new and emerging issues.

While these challenges are diverse and complex, Health Canada is confident that it can work collaboratively with other federal departments, provincial and territorial governments and the many health care stakeholders to ensure the success of the strategy.

Gender-based Analysis and Wait Times: New Questions, New Knowledge

A discussion paper prepared by

Beth E. Jackson, Ph.D.

Post-doctoral Fellow with the CHSRF/CIHR Chair in Health Services
Institute for Health Research, York University

Ann Pederson, M.Sc.

Policy and Research Manager

British Columbia Centre of Excellence for Women's Health

Madeline Boscoe, R.N.

Executive Director

Canadian Women's Health Network

On behalf of the Women and Health Care Reform Group^{1,2}

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1 Representatives from the Centres of Excellence for Women's Health and the Canadian Women's Health Network comprise the Women and Health Care Reform Group. The members of the Group are: Pat Armstrong (Chair), Madeline Boscoe (CWHN), Barbara Clow (ACEWH), Karen Grant (NNEWH), Beth Jackson (Post-doctoral Fellow), Margaret Haworth-Brockman (PWHCE) and Ann Pederson (BCCEWH).

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Gender-based Analysis and Wait Times: New Questions, New Knowledge

Introduction

Gender-based analysis (GBA) involves asking questions in research and/or policy and program development about men and women, boys and girls. Canada has made explicit commitments to gender equity and to using gender-based analysis as a means of improving policy and program development and enhancing gender equity.

The issue of wait times is prominent in current health care reform debates and encapsulates key concerns about the state of the health care system in Canada including issues of quality, access, equity, and efficiency of health care services. A gender-based analysis of wait times is important because women and men have different experiences of health, illness and treatment, have different health care needs, access health care differently and may experience different outcomes from programs and services. An examination of the available literature on wait times for hip and knee replacements (total joint arthroplasty or TJA) suggests that there are gender differences in the need for this surgery as well as in who is more likely to be on the waiting lists for it.

GBA is better science – it produces more valid and reliable evidence about wait times – and the evidence produced by GBA can lead to better recommendations, better strategic interventions, and better outcomes for individuals, households, communities and economies. In this paper, we demonstrate a gender-based analysis of wait times with respect to hip and knee replacements and recommend that this model be applied to research and policy development in other clinical areas and to the examination of wait times in general.

Federal/Provincial/Territorial Commitments to Gender-based Analysis

The federal government has made several commitments to gender equity and gender-based analysis (Health Canada 2003). As a foundation, gender equality is guaranteed under Sections 15(1) and 28 of the Canadian Charter of Rights and Freedoms and by many international human rights instruments to which Canada is signatory. Canada's international commitments to gender equity include ratification in 1981 of the UN Convention on Elimination of All Forms of Discrimination (CEDAW) and adoption of the UN Platform for Action, the concluding document of the UN World Conference on Women in Beijing in 1995.

At the Beijing Conference, the Government of Canada presented its own Federal Plan for Gender Equity (1995-2000), which stated that all subsequent legislation and policies would include, where appropriate, an analysis of the potential for differential effects on men and women. The Federal Plan also made a commitment to government-wide implementation of gender-based analysis in the development of policies, programs and legislation. In 2000, the federal government approved the Agenda for Gender Equality,

an initiative which included engendering current and new policies and programs and accelerating implementation of gender-based analysis commitments. Several federal government departments have issued formal gender-based analysis guidelines, including the Canadian International Development Agency, Human Resources Development Canada, the Department of Justice Canada, Status of Women Canada, and Health Canada. Health Canada's commitment is expressed in the Women's Health Strategy (Health Canada 1999) and Gender-Based Analysis Policy (Health Canada 2000).

Provincial and territorial governments have also supported the implementation of CEDAW. They have done this through the establishment of Status of Women Ministers and women's directorates and/or advisory councils with the provincial/territorial machinery. Many provinces and territories have also undertaken GBA training of policy analysts and prepared supporting materials. These provincial and territorial commitments apply to departments of health, many of which have or have had gender-related focal points (e.g., offices of women's health) and undertaken specific training for their staff. Nevertheless, gender analysis is frequently absent from policy and policy making.

Given these commitments, government at all levels is responsible for ensuring gender analysis and gender equity and for developing mechanisms to do so. This paper is intended to assist researchers, policy makers and health planners with understanding how to approach the topic of wait times from the perspective of gender so that the policies and programs on wait times management that arise from this federal report are consistent with government commitments and support equitable access to care.

Gender-based Analysis

Understanding GBA

Gender-based analysis is a process of interrogating research, programs or policies about what they tell us about, or how they might affect, women and men. GBA is not a prescribed set of techniques but rather the process of questioning whether, how and why something might be different for women or men, girls or boys. Gender-based analysis recognizes that people and populations are always gendered and that the contexts of men's and women's lives matter. Its primary aim is to understand the nature of men's and women's lives; the secondary aim is to understand the similarities and differences between women and men. Gender-based analysis also includes trying to understand the experiences of sub-groups of women and of men, recognizing that neither women nor men as a group are all the same but rather that people differ in important ways according to income, education, ethnicity, race, age, geographic location, sexual orientation and so on. Gender-based analysis is about asking new questions in order to generate new knowledge.

Key Concepts for Gender-based Analysis

Most guides to gender-based analysis distinguish between the key concepts of "sex" and "gender." Health Canada identifies both sex ('biological and genetic endowment') and

gender as determinants of health (Health Canada 2003). “Sex” is generally understood to refer to biological characteristics. These include the reproductive organs and their functions, as well as sex-specific hormonal activity, cellular functioning and developmental patterns (Wizemann and Pardue 2001). “Gender” on the other hand, generally refers to “the array of socially constructed roles and relationships, personality traits, attitudes, behaviours, values, relative power and influences that society ascribes to the two sexes on a differential basis” (Health Canada 2003, p. 8). These distinctions between sex and gender are useful for helping us to recognize that *both* material and social phenomena affect women’s and men’s health. But the relationship between sex and gender is complex – they are not entirely separate. Biological matter (e.g. chromosomes, cells, bodies) do not exist outside of social structures and cultures, and gender relations occur in the physical world. So – even though it may be tempting to do so – we can’t simply extract sex from its social meaning and context, nor can we understand gender apart from its relation to physical bodies. Not surprisingly, because the relationship between sex and gender is complicated, these constructs are often conflated and confused in research and policy statements. It is not uncommon for sex to ‘stand in’ for gender. For example, we see conferences on “gender-based medicine” fail to consider the social dimensions women’s and men’s health, and focus solely on sex-specific, biological variables as if these exist independently of the social environments in which they function. An adequate understanding of women’s and men’s health requires an examination of the complex interactions of both sex and gender.

Sex, Gender, Health and Care

Societies are organized along what Hanna Papanek (1984) has called the “fault lines” of sex and gender, which means that women and men are thought of, treated and live their lives as different kinds of people with different types of bodies and different roles, responsibilities and opportunities. This can result in women and men having different access to life choices and chances – including economic activity, educational attainment, health and care.

Women’s and men’s health and health needs are different both because of differences in their bodies and because of differences in how women and men live, work, and play. For example, overall women have less financial security and less social status than men, but more responsibility for caring for others – women are the overwhelming majority of paid and unpaid care providers.³ Also, women interact with the health care system more frequently than men, in part because of their roles in reproduction and in overseeing the care of other family members.

Europe’s Health Evidence Network (2005) has recently recognized women and men as different “users and producers” of health care because of these differences in women’s and men’s responsibilities for health and care. The HEN suggests that recognizing such

3 “Overall, about 80% of health care professionals in Canada in 2000 were female.” (Canadian Institute for Health Information 2002, p. 40) According to Statistics Canada, as of 1996 most unpaid caregivers were women (Canadian Institute for Health Information 2002, p. 12).

gender considerations is important when trying to understand health outcomes as well as health system performance. In gender-based analysis of health care, we therefore begin by developing an understanding of how women's and men's lives are structured and start to think about how programs, services and policies might be better organized to ameliorate, accommodate or redress the differences among them.

Sex and gender contribute to health problems and living conditions that may be "unique, more prevalent, more serious, or for which there are distinct risk factors or interventions for women or men" (Health Canada 2003, p. 9). These differences affect women's and men's health, their use of the health care system, and their ways of responding to care.

There are also many differences *among* women and *among* men, based on their socioeconomic status, race, ethnicity, age, sexual orientation, (dis)ability, geographic location and other important social locations that have health and health care implications. Gender-based analysis incorporates analysis of these important sources of diversity among women and men as well as the differences between women and men.

Tools for Gender-based Analysis

New Questions

Gender-based analysis is about asking new questions. As the numerous guidebooks and tool kits on GBA illustrate, GBA is as much a way of thinking as a set of prescribed steps. While there are some generally-agreed upon strategies that can be a useful starting point, whenever we undertake a GBA, we have to attend to the particular contexts and features of the policy or phenomenon under scrutiny. Hence currently the tools of GBA consist largely of sets of guiding questions such as: What is the context of women and men's lives and how do these contexts relate to the issue at hand? How and in what way is this particular issue influenced by sex and gender? What does this mean for opportunities to intervene or take action? What are the implications for women and men, boys and girls arising from such understanding? Do current measurement tools capture the differences between and among women and men?

Beyond Sex-disaggregated Data

Given the increasing interest in how sex and gender affect health, it is important to ensure that both are considered in the assessment and reporting of health and health care. Sex-disaggregated reporting of data – breaking data down and reporting it by the categories of male and female – is an important basic resource for gender-based analysis, but GBA always requires further questioning. Sex-disaggregated data alone do not reveal or clarify the ways in which systemic group processes like gender norms and sexism are generated and maintained, nor how gender relations and political-economic structures produce health inequities – yet these are important determinants of health and of overall system costs.

Breaking data down by sex frequently does not reveal important differences in men's and women's experience of health, illness and health care. For example, even when a phenomenon appears to occur with same incidence in women and men, the factors contributing to the similarity and the consequences of it may be very different and may require different interventions or responses. Moreover, measurement tools which show that men and women encounter a phenomenon (an illness, a wait time) with the same frequency, may not be sensitive to differences in men's and women's bodies and experiences. For example, in the case of hip/knee replacement, we find that while women and men may have similar radiographic (e.g. x-ray) results – used as a measure of the severity of disease – women report more pain and disability than men. Thus, the tools we use to measure health and health system performance may require further scrutiny through a gender-based analysis. In other words, a GBA is as integral to formulating the right questions and the right measurement tools, as it is to conducting good analysis.

The Value of Gender-based Analysis in Health Care Research and Policy

GBA supports gender equity and better science (Greaves 1999; Health Canada 2003). GBA can help to produce evidence that will support the development of initiatives that ameliorate the conditions that produce gender inequities and accommodate sex and gender differences. It may also reduce system costs in the long run by identifying the problems and solutions more appropriately. Yet, in spite of federal, provincial and territorial commitments to gender-based analysis, much health research and policy fails to (1) report sex-disaggregated data wherever possible, (2) propose gender-sensitive research questions and (3) monitor gender inequities in health or in the health system. Lin et al. point out that “the paucity of gender-sensitive indicators for health system performance points to a glaring absence of engagement between those working on gender equity and those working on health sector reform” (La Trobe Consortium 2003).

Recently, the Health Evidence Network of the WHO Regional Office for Europe (2005) has begun to look specifically for evidence about the effects of health care reforms on gender equity in the health field. After searching for and reviewing evidence of the gender-related effects of decentralization, financing, privatization and priority setting, they concluded that “(e)merging evidence shows that health care reforms can affect men and women differently, as a consequence of their different positions as users and producers of health care” (p. 4). Data are also beginning to be collected that demonstrate that gender-sensitive programming has positive outcomes. An assessment of program evaluations conducted on a wide range of reproductive health programs worldwide, for example, has demonstrated that integrating gender considerations into reproductive health programs can improve both health *and* gender outcomes (that is, the status of women) (Interagency Gender Working Group 2004) that benefit not only women but the society as a whole.

These examples point to the increasing recognition of the value of gender-based analysis for improving our understanding of health care reforms and the effectiveness of health system performance. Given the importance of wait times in current health care reform debates in Canada – and the link between wait times and issues of quality, access, equity,

and efficiency of health care services – it is critically important to incorporate an analysis of sex and gender into research and policy recommendations on wait times.

Gender-Based Analysis of Wait Times and Wait Lists

Sensitizing Questions

Whether and to what extent gender plays a role in the ‘issue’ of wait times is an empirical question. That is, we do not assume or know how gender affects wait times or the management of wait lists. Rather, we assert the importance of raising and answering key sensitizing questions, such as:

- What are the contexts of women’s and men’s lives and how do their contexts differ? How might these differing contexts shape women’s and men’s need for and access to care, including care for which there are wait lists?
- How is the problem of wait times and waiting lists framed, and by whom? What evidence is marshaled to support this framing?
- How do we measure and monitor the health condition to which wait times apply?
- How is the problem (e.g., waiting time, seriousness/urgency, and impact of waiting) measured?
- How are the data reported?
- What does this measurement tell us about how the problem affects men and women?
- Is this an adequate measure? That is, do the measurement tools adequately reflect differences that may exist between women and men, and among women or among men in different social locations?
- Who benefits and who suffers?

In this Appendix, we demonstrate a gender-based analysis of hip/knee replacement surgery, one of the five clinical areas prioritized by the First Ministers for reduction of wait times.

Wait Times and Wait Lists as an Issue

The very identification of wait times as a problem is the outcome of assumptions and choices that must be examined closely. In general, the problems of wait times, waiting lists and their impact on health outcomes and the health care system are framed in a discourse of escalating crisis about the state of the health care system. Reducing wait times has become a key priority for both provincial and federal governments, even though evidence compiled in the Romanow Report from jurisdictions outside Canada has “warned against simplistic solutions such as focusing solely on wait times. Improving access to care is more than just speeding access to elective surgery. It’s also about appropriate, timely interventions along the full spectrum of care” (Pascal 2006, p. A15). Nevertheless, there is growing concern that long waits for health care have serious economic costs, may cause physical and psychological harm to patients, raise questions about fairness, and may undermine public confidence in the health care system (Health

Council of Canada, 2005). Users of health care, general practitioners, nurses, surgical specialists and health care managers express the *belief* that wait times are increasing, and the media reinforce this perception by reporting extreme cases of waiting. But evidence from Statistics Canada and provincial databases suggests that wait times have been stable in recent years (Canadian Institute for Health Information 2006b; Shortt 2000) – for example, evidence from the Health Services Access Survey indicates that median wait times for non-emergency surgery remained virtually the same from 2001 to 2005 (Canadian Institute for Health Information 2006b).

To complicate matters, the definition of ‘wait times’ has vexed researchers and policy makers attempting to assess and address the extent of the problem – definitions and measurement have been inconsistent across jurisdictions and among researchers. For example, some measurements are prospective while others are retrospective; some report mean wait times while others report the median; and there is variation in ‘when the clock starts’ on waiting.

In December 2005, provincial web sites defined ‘wait time’ for hip and knee replacement surgery as: the time from the second previous appointment with an orthopedic surgeon to surgery (Nova Scotia); the time from decision-to-treat to surgery (PEI, Ontario, Manitoba and Alberta); the time from hospital booking to surgery (Quebec and British Columbia); and the time from booking form received to surgery (Saskatchewan) (Canadian Institute for Health Information 2006b). On December 12, 2005, federal, provincial and territorial Ministers announced common benchmarks for selected treatments and agreed: “wait time begins with the booking of a service, when the patient and the appropriate physician agree to a service and the patient is ready to receive it. The appropriate physician is the one with the authority to determine the needed service. A wait time ends with the commencement of the service.” (Ministry of Health and Long-Term Care 2005) Each of these definitions excludes significant portions of the ‘patient journey’ through the health care system, thus excluding significant elements of waiting. Moreover, each definition may influence the effectiveness of the measure for women and for men.

Meanwhile, there is very little information about how women and men are affected by waiting which takes into account the kinds of paid/unpaid work they do, the supports they have, or their responsibilities as wage earners and/or caregivers for family members and others. For example, “women often have roles as homemakers and caregivers that may be affected by arthritis disability. Since most disability and employment studies focus only on paid work, relatively little is known about the effect of arthritis on domestic responsibilities” and hence, on the impact of waiting for care (Badley and Kasman 2004, p. S25-S26). Moreover, most – if not all – wait times data are reported in aggregate, that is, they are not separated for women and men, making it difficult to determine what differences there may be between (and among) women and men.

Wait Times, Waiting Lists and Total Joint Arthroplasty

In what follows, we apply a gender-based analysis to the clinical area of hip and knee replacements (‘total joint arthroplasty’ or TJA), procedures for which there is growing

demand in Canada: there was a 19% increase in hip replacements and a 62% increase in knee replacements between 1994-95 and 2001-02 (Canadian Institute for Health Information 2006). There is evidence that delayed procedures can result in poorer health outcomes, and that there are cost-savings associated with hip/knee replacement performed earlier in the course of disease (Fortin et al. 1999; Masri et al. 2005). Moreover, Ethgen et al. (2004, p. 970) argue: "If more disabled patients can achieve substantial relief, then disproportionately long waiting times impose an avoidable burden of pain and disability." The waiting associated with TJA is clearly a pressing concern. But how are diagnosis, prevalence of need, application of treatment, response to treatment, the waiting associated with treatment, and treatment outcomes different between and among men and women? Answering these questions could lead not only to more efficient and effective outcomes but to savings in costs and suffering as well.

Gender and Arthritis

Let's start with the condition at the root of most hip/knee replacements. Arthritis is one of the most prevalent chronic conditions in Canada, and a leading cause of long-term disability, pain, and increased health care utilization. Arthritis is far more common among women than among men – osteoarthritis affects about twice as many women as men (Badley and Kasman 2004). The specific causes of osteoarthritis may differ by gender, insofar as women and men have different rates of correlated conditions and undertake different activities that are predictors of osteoarthritis. For example, established mechanical risk factors for knee osteoarthritis include obesity and previous knee injury (Cooper and Coggon 1999). The evidence related to the risk posed by physical activity is somewhat controversial – there is little evidence to suggest that regular physical activity throughout life is associated with increased risk of knee osteoarthritis, although high intensity, high impact activity is associated with a small increase in risk (Cooper and Coggon 1999; Sutton et al. 2001; Rogers et al. 2002). In fact, physical activity may *reduce* the risk of hip/knee osteoarthritis, especially among women (Rogers et al. 2002). Gender differences in levels and type of physical activity may thus help explain different rates of osteoarthritis in women and men. Research on *work-related* activities and osteoarthritis of the hip and knee suggests that occupational kneeling and squatting for extended periods are risk factors (Maetzel et al. 1997; Cooper and Coggon 1999). However, despite the greater incidence of osteoarthritis in women, research on the impact of physical activity and mechanical occupational exposure has attended mainly to men, focusing on former athletes and 'masculine' occupational categories such as agriculture, forestry, fishing and transportation (Maetzel et al. 1997; Cooper and Coggon 1999; Manninen et al. 2002). In one review, no studies were found that investigated occupational exposure and hip osteoarthritis in women (Maetzel et al. 1997). This glaring absence of gender awareness in research not only reveals poor evidence, it also impedes appropriate and effective prevention and treatment for women and may compromise health outcomes for women, who are more at risk for osteoarthritis than men.

Differences in social factors such as class, race, relationship status and labour force participation are also observed between and among women and men with arthritis. Lower income and fewer years of education are associated with higher rates of arthritis in both

women and men (though more women than men live on low income) but these disparities are greater among women than among men. There is also evidence that the prevalence of knee osteoarthritis is higher in black women than in white women (Sowers et al. 2000). In general, women with arthritis are likely to be older, have lower incomes, have fewer years of education, and are more likely to be widowed and out of the labour force than women with other chronic conditions. “Consequently, it appears that the women who are experiencing arthritis may be the women with the fewest resources to deal with the impact of the condition on their daily lives.” (Badley and Kasman 2004, p. S23) We can surmise that these women also have the fewest resources to deal with the impact of waiting *for* surgery, and with the challenges of rehabilitation *from* surgery.

Gender and Total Joint Arthroplasty

For individuals with advanced osteoarthritis of the hip or knee, total joint arthroplasty (hip/knee replacement) is the definitive treatment (Blackstein-Hirsch et al. 2000; Hawker 2004). What do we currently know about how the need for TJA differs between men and women? A Canadian population-based study found that the estimated potential need for hip/knee arthroplasty was more than twice as great among women as men because of the higher prevalence of severe hip/knee arthritis in women (Hawker et al. 2000). In comparison with men, women had more arthritis pain, were more likely to be disabled, and were more likely to require personal assistance in performing daily activities (mostly because they were more likely to live alone – this is consistent with other evidence about the living arrangements of women with osteoarthritis) (Hawker et al. 2000; Ethgen et al. 2004). This study indicated that arthroplasty was *underused* in both men and women, and that the degree of underuse was more than 3 times greater in women (Hawker et al. 2000). Because evidence indicates that earlier intervention in the course of hip or knee osteoarthritis results in better postoperative outcome (Fortin et al. 1999), we can surmise that “underuse of arthroplasty may have substantial direct costs to the health care system and indirect costs to society, and that more of these costs are due to underuse in women than in men.” (Hawker et al. 2000, p. 1020)

Costs of Disabling Hip/Knee Osteoarthritis

What are the costs of disabling hip/knee osteoarthritis? Both direct costs and indirect costs to the health care system and/or patients can be calculated. A recent Canadian study of direct costs (e.g. for community services, paid help, purchase of equipment) and indirect costs (e.g. lost income, value of unpaid caregiving) found that indirect costs account for most of the cost of osteoarthritis (Gupta et al. 2005). The value of caregiver time accounts for, on average, 40% of total indirect cost. As the majority of paid and unpaid caregivers are women, these costs are largely accounted for by women’s labour. In this study, *men* were less likely to report costs – but when they did, they reported costs which were nearly 25% higher than those reported by women. Men’s greater reported costs may reflect their overall higher salary and thus greater income loss. Individuals living in rural regions reported higher total costs, and *rural women* were significantly more likely to incur *direct* costs than any other gender/region group (among urban respondents, men and women did not differ significantly in direct costs incurred).

Individuals who lived alone were less likely than those living with others or in a nursing home to report unpaid help with chores – and in both urban and rural settings, *women* were more likely than men to be living alone. As women are more likely to live alone, less likely to report unpaid help, and overall have less income than men, they appear to have fewer material and social resources for waiting and for rehabilitation following joint replacement. This lack of resources may have an impact on women's willingness to undergo surgery and/or surgeons' willingness to recommend surgery. These differences reveal the importance of a gender analysis for assessing the impact of illness and rehabilitation on men and women, as well as for planning in the health care system.

Accounting for Greater Underuse of TJA Among Women

Gender-blind Diagnostic Tools

This returns us to the question of why there is greater underuse of arthroplasty in women. One explanation is the inability of so-called 'gender blind' or 'objective' diagnostic tools such as radiographic assessment to distinguish how arthritis disease manifests differently in women and men. A study examining function in patients awaiting knee replacement revealed that across "all variables measured, the common theme was the marked impairment and disability in women awaiting arthroplasty when compared with men awaiting the same surgery. *Despite similar radiographically determined knee damage, women were worse across all variables evaluated.*" (Pagura et al. 2003, emphasis added) If radiography is used as the primary tool to measure severity and/or urgency in the referral for TJA and management of wait lists, gender inequities may result because the tool underestimates severity/urgency in women. Gender-based analysis thus reveals important limitations of 'objective' measurement tools and can point to the need for more robust and equitable measures. Ethgen et al. (2004, p. 970) recommend expanding the scope of diagnostic and referral tools:

To manage the waiting list, a patient's perception of his or her overall symptom burden and ability to tolerate delayed pain relief should be considered along with information derived from clinical judgments.
Several studies have suggested that the SF-36 and the WOMAC [scales used to assess severity of symptoms] may assist the surgeon in placing the patient on the waiting list for surgery. In a study of patients who had a total hip arthroplasty, the scores on the WOMAC pain and physical function scales at twelve months postoperatively were not predicted by the preoperative radiographic grade of osteoarthritis. *This suggests that the symptoms and not the radiographic grade should drive the decision for surgery.* The practice of delaying total hip arthroplasty until severe radiographic changes are evident should therefore be questioned, and more attention should be paid to the patient's self-perception of health status (emphasis added).

Diagnostic and referral tools informed by gender-based analysis will more accurately reflect the disease course and treatment needs of women and men with disabling hip and

knee arthritis. This, in turn, will affect how women and men are referred for treatment, and, ultimately, their inclusion on wait lists.

Gendered Treatment Patterns

The problem of under-use of arthroplasty (i.e. under-referral for surgery) among women may also be explained by gendered clinical communication patterns. That is, women may not report their symptoms in the same way as men, nor may women's symptoms be interpreted or acted upon by clinicians in the same way as men's. In one study, while women were more likely than men to seek treatment for arthritis and had similar levels of coexisting conditions, "women with a potential need for arthroplasty were less likely than men to report ever having discussed arthroplasty with a physician" (Hawker et al. 2000, p. 1021). The findings of this study suggest that "women are less likely to be referred, or perhaps are referred after a longer interval, to orthopedic surgeons for consideration for arthroplasty. Such a delay might occur because women are less likely to initiate discussions about their arthritis or its treatment, or are less demanding of surgery when it is discussed. [...] Alternatively, primary care providers may have attitudes regarding the risks of, indications for, and expected outcomes of arthroplasty that make them consider women less appropriate candidates for surgery than men." (Hawker et al. 2000, p. 1021)⁴ These findings are consistent with evidence of gender bias in diagnosis and treatment, and gender differences in clinical communication.

There is "a sizable literature [...] indicating that physicians make more diagnostic errors and initiate less-aggressive interventions with women than with men" (Elderkin-Thompson and Waitzkin 1999, p. 112). For example, while women report more severe levels of pain, more frequent incidences of pain and pain of longer duration than men, they are less likely to receive treatment for it (Hoffman and Tarzian 2001). While men are slower to seek treatment for pain than women, there is no evidence that men are in need of more aggressive care when they do seek care. There are several explanations for diagnostic and treatment disparities related to men's and women's pain: some clinicians may believe that women have a higher capacity to endure pain, based on their biological role in childbirth; some clinicians may believe that because women have more and better coping mechanisms for dealing with pain than men, women are better able to withstand pain and need less treatment; and some clinicians attribute women's symptoms to overanxiousness and interpret women's communication strategies as evidence of an overly emotional response to their symptoms (Elderkin-Thompson and Waitzkin 1999; Hoffman and Tarzian 2001). Moreover, a majority of studies conducted to date indicate racial and ethnic disparities in treatment for pain – specifically, African-American and Hispanic patients are less likely than whites to receive effective pain treatment; this holds true across a range of health care settings (Bonham 2001). Accordingly, we are likely to find differences in symptom assessment and treatment among as well as between women and men. Diagnostic tools and referral practices must therefore be informed by gender

⁴ In this study, women and men gave similar reasons for not yet having had arthroplasty when it was recommended, "except that women were less risk averse than men [which suggests they may be more willing to undergo surgery] and were more likely to be still waiting to see the orthopedic surgeon" (Hawker et al. 2000, p. 1019).

and diversity analyses, to ensure that they are valid for women and men across social locations.

Gendered Decision-making Patterns

To shed further light on the question of why women have greater underuse of hip/knee replacement surgery, we can turn to research on patients' decision-making practices regarding total joint arthroplasty. According to Hudak et al. (2002), some patients do not see their arthritic pain or disability as problems, nor see arthritis as a disease that needs attention or treatment. People who have normalized their arthritis may be less likely to initiate conversations about arthritis treatment with their health care providers. Patients may also choose not to initiate discussion about TJA with their practitioner because of "fears stemming from misinformation, lack of information, or misperceptions" (Hudak et al. 2002, p. 276) – however, the observations in this study are about 'people' and 'patients' – they are not disaggregated by gender and do not reveal potential differences between men and women. Other researchers have found that patients' concerns about lack of social support post-surgery may fuel unwillingness to undergo the procedure: "A lack of social support frequently accompanies aging, which then creates the possibility that patients are not merely unwilling to accept the costs of rehabilitation but are in fact unable to secure support during their recovery." (Clark et al. 2004, p. 1373) Because elderly women are more likely to live alone than elderly men, it is reasonable to surmise that women may have more difficulty securing needed support. In addition, because most women are more likely than men to be caregivers for others, they may be more likely to be *providing* support than *receiving* it. Clark et al. (2004, p. 1373) conclude: "In light of sex-related differences in the rate of use of surgery and previous focus group research indicating that female patients with arthritis face practical barriers when considering joint replacement, the issue of social support demands more focused research attention." Such research might examine how referral rates for women and men are affected by levels of social support, which may in turn be influenced by a combination of gender, age, income and other factors.

Conclusion

In sum, available evidence indicates that:

- women have twice the rate of osteoarthritis as men;
- women of colour have higher rates of knee osteoarthritis than white women;
- individuals with lower income and fewer years of education have higher rates of arthritis than those with higher income and education (and there are greater differences among women than among men);
- women living with arthritis have fewer resources to deal with the impact of the disease than women living with other chronic conditions;
- women have more arthritis pain than men, are more likely than men to be disabled, and are more likely than men to require personal assistance with daily activities, but are less likely than men to report unpaid help (in part because elderly women are more likely to live alone);

- women are less likely than men to report having discussed TJA with a physician; accordingly, women are less likely than men to be referred, or are referred after a longer interval to an orthopaedic surgeon; and
- the underuse of total joint arthroplasty among women has significant direct costs to the health care system (an outcome of delayed treatment) and indirect costs to society (e.g. loss of productivity).

Women with knee/hip osteoarthritis spend substantial time ‘waiting to wait.’ Despite reporting greater pain and disability than men, women more often wait to be referred to orthopaedic surgeons, and to be referred to surgery. Importantly, this stage of waiting is not reflected in official wait times data. Because wait time is defined as the time between booking and receiving a procedure, the extra time that women wait is effectively erased. The Health Council of Canada (2005, p. 1) notes that: “Without a common understanding of the mechanisms that may create delay and how waiting in health care systems functions, real progress will be difficult.” Presently, the definitions of wait times and the constitution of wait lists for TJA obscure the differences in men’s and women’s ‘patient journeys’ through the health care system.

The goals of reducing wait times include: reducing suffering, improving quality of life, reducing further costs to the health care system (by treating people earlier in the course of illness), and ensuring that the system operates fairly, “such that access to appropriate and effective health care is both timely and prioritized on the basis of need and potential benefit” (Pitt 2003) (cited in Canadian Health Services Research Foundation 2005, p. 1). But these goals cannot be met if the people with greatest need are not recognized, and never make it to the list in the first place.

The goals of better wait time management in the case of hip and knee replacement surgery cannot be met without first examining disparities in referrals to wait lists and in access to treatment relative to need. We must address the question: Are interpretations of symptoms and measurements of urgency equitable and valid for women and men across race, ethnicity, class, and other important social locations? The Health Council of Canada (2005, p. 7) acknowledges: “One of the most difficult tasks that face health services managers is the accurate estimate of true need and demand” and the Council “supports continuing attempts to better define true need.” But the Council – clearly *not* informed by a gender-based analysis of the five priority areas for wait times – recommends that “historical utilization patterns should be accepted as the best estimate of current need”. In the case of TJA, this perpetuates the masking of women’s greater need and greater underuse of joint replacement surgery. This recommendation is a clear example of how developing wait times policy *without* applying a gender-based analysis will not only thwart the goals of better wait time management, it may actually *increase* health inequities.

In the case of TJA, and across other clinical areas, the measurement of wait times (when ‘the clock starts and stops’) must take into account women’s and men’s different journeys through the health care system. Clinicians who hold the power to ‘start the clock’ must better understand the contexts of men’s and women’s lives, so they can more equitably

assess men's and women's symptoms and needs (both pre- and post-intervention). Gender-sensitive diagnostic and referral tools must be developed and implemented to ensure that the women and men who need medical intervention will get it. Furthermore, equitable construction and management of wait lists must take into account the supports that women and men require post-intervention, as a lack of support may affect both patients' and clinicians' willingness to consider treatment. The outcomes of these efforts may increase the number of women on surgical wait lists, but also reduce costs to the system and reduce social costs in the long run.

Gender-based research and analysis can illuminate the construction of wait times and wait lists, the impact of waiting on women and men, and the supports that women and men may need while they wait. Gender-based analysis may also lead to the identification of more appropriate indicators for wait times, health, and health care outcomes. Applied consistently, it will help us develop more equitable, effective and efficient health care services and policies.

References

Badley, Elizabeth M., and Naomi M. Kasman. 2004. The impact of arthritis on Canadian women. *BMC Women's Health* 4 (Suppl 1):S18- S27.

Blackstein-Hirsch, Paula, Jeffrey D. Gollish, Gillian Hawker, Hans J. Kreder, Nizar N. Mahomed, and J. Ivan Williams. 2000. Information Strategy: Urgency Rating, Waiting List Management and Patient Outcomes Monitoring for Primary Hip/Knee Joint Replacement. Toronto: Institute for Clinical Evaluative Sciences.

Bonham, Vence I. 2001. Race, ethnicity, and pain treatment: striving to understand the causes and solutions to the disparities in pain treatment. *The Journal of Law, Medicine and Ethics* 29 (1):52-68.

Canadian Health Services Research Foundation. 2005. Evidence Boost: Manage waiting lists centrally for better efficiency. Ottawa: CHSRF.

Canadian Institute for Health Information. 2002. Canada's Health Care Providers. Ottawa: CIHI.

———. 2006. *Table 1. Number of Total Hip and Knee Replacement Procedures and Percent Change, 2001–2002 Compared to 1994–1995 and 2000–2001* [electronic source]. CIHI, March 30, 2006 [cited March 30 2006]. Available from http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=statistics_results_source_cjrr_e.

———. 2006b. Waiting for health care in Canada: what we know and what we don't know. Ottawa: CIHI.

Clark, Jocalyn P., Pamela L. Hudak, Gillian A. Hawker, Peter C. Coyte, Nizar N. Mahomed, Hans J. Kreder, and James G. Wright. 2004. The moving target: a qualitative study of elderly patients' decision-making regarding total joint replacement surgery. *The Journal of Bone and Joint Surgery* 86 (7):1366-1374.

Cooper, Cyrus, and David Coggon. 1999. Physical activity and knee osteoarthritis. *The Lancet* 353:2177-2178.

Elderkin-Thompson, Virginia, and Howard Waitzkin. 1999. Differences in clinical communication by gender. *Journal of General Internal Medicine* 14:112-121.

Ethgen, Olivier, Olivier Bruyere, Florent Richy, Charles Dardennes, and Jean-Yves Reginster. 2004. Health-related quality of life in total hip and total knee arthroplasty. *The Journal of Bone and Joint Surgery* 86A (5):963-974.

Fortin, Paul R., Ann E. Clarke, Lawrence Joseph, Matthew H. Liang, Michael Tanzer, Diane Ferland, Charlotte Phillips, Alison J. Partridge, Patrick Belisle, Anne H. Fossel, Nizar N. Mahomed, Clement B. Sledge, and Jeffrey N. Katz. 1999. Outcomes of total hip and knee replacement: Preoperative functional status predicts outcomes at six months after surgery. *Arthritis and Rheumatism* 42 (8):1722-1728.

Greaves, L. et al. 1999. CIHR 2000: sex, gender and women's health. Vancouver: British Columbia Centre of Excellence for Women's Health.

Gupta, S., G.A. Hawker, A. Laporte, R. Croxford, and P.C. Coyte. 2005. The economic burden of disabling hip and knee osteoarthritis (OA) from the perspective of individuals living with this condition. *Rheumatology* 44:1531-1537.

Hawker, Gillian A. 2004. The quest for explanations for race/ethnic disparity in rates of use of total joint arthroplasty. *The Journal of Rheumatology* 31 (9):1683-1685.

Hawker, Gillian A., James G. Wright, Peter C. Coyte, J. Ivan Williams, and et al. 2000. Differences between men and women in the rate of use of hip and knee arthroplasty. *New England Journal of Medicine* 342 (14):1016-1021.

Health Canada. 1999. Health Canada's Women's Health Strategy. Cat. H221-138/1997. Ottawa: Minister of Public Works and Government Services.

_____. 2000. Health Canada's Gender-based Analysis Policy. Cat. H34-110/2000. Ottawa: Minister of Health.

_____. 2003. Exploring concepts of gender and health. Ottawa: Women's Health Bureau, Health Canada.

Health Council of Canada. 2005. 10 Steps to a Common Framework for Reporting on Wait Times. Toronto: Health Council of Canada.

Health Evidence Network. 2005. What evidence is there about the effects of health care reforms on gender equity, particularly in health? Copenhagen: World Health Organization, Regional Office for Europe.

Hoffman, Diane E., and Anita J. Tarzian. 2001. The girl who cried pain: a bias against women in the treatment of pain. *The Journal of Law, Medicine and Ethics* 29 (1):13-27.

Hudak, Pamela L., Jocalyn P. Clark, Gillian A. Hawker, Peter C. Coyte, Nizar N. Mahomed, Hans J. Kreder, and James G. Wright. 2002. "You're perfect for the procedure! Why don't you want it?" Elderly arthritis patients' unwillingness to consider total joint arthroplasty surgery: a qualitative study. *Medical Decision Making* 22:272-278.

Interagency Gender Working Group. 2004. The 'so what?' report. A look at whether integrating a gender focus into programs makes a difference in outcomes. Washington, DC: Population Reference Bureau.

La Trobe Consortium. 2003. Comparative Evaluation of Indicators for Gender Equity and Health. Kobe, Japan: Women and Health Programme, World Health Organization.

Maetzel, A., M. Makela, G.A. Hawker, and C. Bombardier. 1997. Osteoarthritis of the hip and knee and mechanical occupational exposure -- a systematic overview of the evidence. *Journal of Rheumatology* 24 (8):1599-1607.

Manninen, P., M. Heliovaara, H. Riihimaki, and O. Suoma-Iainen. 2002. Physical workload and the risk of severe knee osteoarthritis. *Scandinavian Journal of Work and Environmental Health* 28 (1):25-32.

Masri, Bassam A., Nancy Cochrane, Michael Dunbar, Clive Duncan, Ken Hughes, Jacek Kopec, Hans J. Kreder, Nizar N. Mahomed, William Miller, David Pitman, and Iris Weller. 2005. Priority Criteria for Hip and Knee Replacement: Addressing Health Service Wait Times. Report 1 Literature Review. Waiting, Consequences & Benchmarks for Joint Replacement. Vancouver: H. Krueger & Associates Inc.

Ministry of Health and Long-Term Care. 2005. Backgrounder: Provinces and Territories Establish Wait Times Benchmarks. Toronto: MOHLTC.

Pagura, Sonia M.C., Scott G. Thomas, Linda J. Woodhouse, and Shereen Ezzat. 2003. Women awaiting knee replacement have reduced function and growth hormone. *Clinical Orthopaedics and Related Research* 415:202-213.

Papanek, H. 1984. Women in development and women's studies: agenda for the future. East Lansing, MI: Office of Women in International Development, Michigan State University.

Pascal, Charles E. 2006. Romanow, Romanow, where art thou? *The Globe and Mail*, March 7, A15.

Pitt, D.F. et al. 2003. Waiting lists: management, legalities and ethics. *Canadian Journal of Surgery* 46 (3):170-175.

Rogers, L.Q., C.A. Macera, J.M. Hootman, B.E. Ainsworth, and S.N. Blair. 2002. The association between joint stress from physical activity and self-reported osteoarthritis: an analysis of the Cooper Clinic data. *Osteoarthritis Cartilage* 10 (8):617-622.

Shortt, S.E.D. 2000. Waiting for medical services in Ontario: clarifying the issues in a period of health reform. Kingston, ON: Queen's University; Atkinson Charitable Foundation.

Sowers, M., L. Lachance, M. Hochberg, and D. Jamadar. 2000. Radiographically defined osteoarthritis of the hand and knee in young and middle-aged African American and Caucasian women. *Osteoarthritis Cartilage* 8 (2):69-77.

Sutton, A.J., K.R. Muir, S. Mockett, and P. Fentem. 2001. A case-control study to investigate the relation between low and moderate levels of physical activity and osteoarthritis of the knee using data collected as part of the Allied Dunbar National Fitness Survey. *Annals of the Rheumatic Diseases* 60 (8):756-764.

Wizemann, Theresa, and Mary-Lou Pardue, eds. 2001. *Exploring the biological contributions to human health: does sex matter?* Washington, D.C.: National Academy Press.

